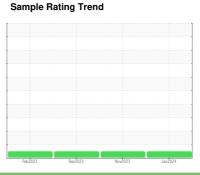


# **OIL ANALYSIS REPORT**

# Walgreens - Yard Horse [Walgreens - Yard Horse] 136A81254

**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

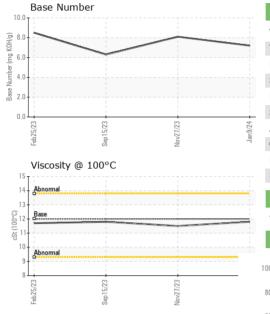
### **Fluid Condition**

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

P	•		Feb 2023	3 Sep2023	Nov2023 Ji	an 2024	
Sample Date	SAMPLE INFORM	1ATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         12779         12353         11907           Oil Age         hrs         Client Info         0         0         0         0           Oil Changed         Client Info         Changed         Changed         Changed         Changed         Changed         NORMAL           Sample Status         WC Method         Imilitrose         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0         <1.0           Water         WC Method         >5         <1.0         <1.0         <1.0         <1.0           Glycol         WC Method         NEG         NEG         NEG         NEG         NEG           WEAR METALS         method         limitbase         current         history1         history1         history2           Iron         ppm         ASTM D5185m         >10         0         0         0         0         1         1         4         1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1<	Sample Number		Client Info		PCA0103581	PCA0103519	PCA0103531
Oil Age         hrs         Client Info         Changed         Changed Changed         Changed Changed Changed Changed Changed Changed Changed Sample Status         Changed NoRMAL N	Sample Date		Client Info		09 Jan 2024	27 Nov 2023	15 Sep 2023
Oil Changed   Client Info   Changed   NORMAL   NORMAL   NORMAL   NORMAL	Machine Age	hrs	Client Info		12779	12353	11907
Sample Status	Oil Age	hrs	Client Info		0	0	0
Fuel	Oil Changed		Client Info		Changed	Changed	Changed
Fuel	Sample Status				NORMAL	NORMAL	NORMAL
Water         WC Method         >0.2         NEG         NEG         NEG           Glycol         WC Method         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         8         12         35           Chromitiom         ppm         ASTM D5185m         >20         <1         <1         <1           Nickel         ppm         ASTM D5185m         >4         0         0         0         0           Siliver         ppm         ASTM D5185m         >3         0         0         0         0           Siliver         ppm         ASTM D5185m         >20         4         2         <1         1           Lead         ppm         ASTM D5185m         >40         0         0         <1         1	CONTAMINATION	NC	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	<1.0
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	NEG
Iron	Glycol		WC Method		NEG	NEG	NEG
Chromium         ppm         ASTM D5185m         >20         -1         <1	WEAR METALS	5	method	limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >20         <1         <1         <1           Nickel         ppm         ASTM D5185m         >4         0         0         0           Titanium         ppm         ASTM D5185m         0         0         0           Silver         ppm         ASTM D5185m         >3         0         0         0           Aluminum         ppm         ASTM D5185m         >20         4         2         <1	Iron	ppm	ASTM D5185m	>100	8	12	35
Nickel	Chromium	• •	ASTM D5185m	>20	<1	<1	<1
Titanium	Nickel				0	0	0
Stiver	Titanium	• •					0
Aluminum         ppm         ASTM D5185m         >20         4         2            Lead         ppm         ASTM D5185m         >40         0         0         <1				>3	-		
Lead		• •					
Copper         ppm         ASTM D5185m         >330         2         <1         <1           Tin         ppm         ASTM D5185m         >15         0         0         0           Vanadium         ppm         ASTM D5185m         0         0         0         0           Cadmium         ppm         ASTM D5185m         0         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         0         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         59         55         60           Manganese         ppm         ASTM D5185m         0         <1					0		
Tin		• •					
Vanadium         ppm         ASTM D5185m         0         <1         0           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         59         55         60           Mangaese         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         950         954         996         1127           Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1					_		
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         0         0         0           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         59         55         60           Manganese         ppm         ASTM D5185m         0         <1		• •		710			
ADDITIVES					-		
Boron		PP		limit/base			
Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         59         55         60           Manganese         ppm         ASTM D5185m         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >225         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         0         2           Potassium         ppm         ASTM D7844		nnm					
Molybdenum         ppm         ASTM D5185m         50         59         55         60           Manganese         ppm         ASTM D5185m         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         1056         1082         1103           Zinc         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current		• •					
Manganese         ppm         ASTM D5185m         0         <1         0         <1           Magnesium         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         1180         1192         1201         1373           Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844							
Magnesium         ppm         ASTM D5185m         950         890         913         1020           Calcium         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         1180         1192         1201         1373           Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         *ASTM D7624         >20		• •					
Calcium         ppm         ASTM D5185m         1050         954         996         1127           Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         1180         1192         1201         1373           Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         "ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.mm         "ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         "ASTM D7414         <	-						
Phosphorus         ppm         ASTM D5185m         995         1056         1082         1103           Zinc         ppm         ASTM D5185m         1180         1192         1201         1373           Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         >20         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method	ŭ						
Zinc         ppm         ASTM D5185m         1180         1192         1201         1373           Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414							
Sulfur         ppm         ASTM D5185m         2600         2875         2856         3910           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4							
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4							
Silicon         ppm         ASTM D5185m         >25         3         3         5           Sodium         ppm         ASTM D5185m         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4	CONTAMINANT		method	limit/base		history1	history2
Sodium         ppm         ASTM D5185m         0         2         5           Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4				>25	3	3	5
Potassium         ppm         ASTM D5185m         >20         0         0         2           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4		• •					
Soot %         %         *ASTM D7844 >3         0.7         0.6         1           Nitration         Abs/cm         *ASTM D7624 >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415 >30         18.7         19.0         22.0           FLUID DEGRADATION method limit/base current history1 history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         15.9         16.3         20.4	Potassium		ASTM D5185m	>20			
Nitration         Abs/cm         *ASTM D7624         >20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4	INFRA-RED		method	limit/base	current	history1	history2
Nitration         Abs/cm         *ASTM D7624 > 20         9.7         9.5         11.1           Sulfation         Abs/.1mm         *ASTM D7415 > 30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 > 25         15.9         16.3         20.4	Soot %	%	*ASTM D7844	>3	0.7	0.6	1
Sulfation         Abs/.1mm         *ASTM D7415         >30         18.7         19.0         22.0           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         15.9         16.3         20.4							
Oxidation Abs/.1mm *ASTM D7414 >25 <b>15.9</b> 16.3 20.4							
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
<b>Base Number (BN)</b> mg KOH/g   ASTM D2896   <b>7.2</b> 8.1 6.3	Oxidation	Abs/.1mm	*ASTM D7414	>25	15.9	16.3	20.4
	Base Number (BN)	mg KOH/g	ASTM D2896		7.2	8.1	6.3



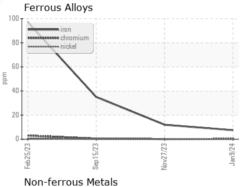
# **OIL ANALYSIS REPORT**

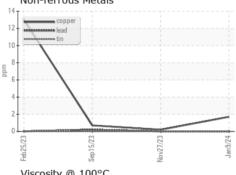


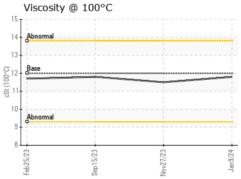
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

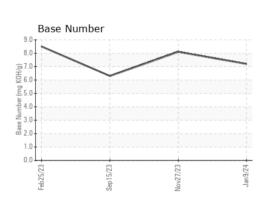
FLUID FROF		memod			HISTORY	HISTORYZ
Visc @ 100°C	cSt	ASTM D445	12.00	11.8	11.5	11.8

### **GRAPHS**











Certificate L2367

Laboratory Sample No. Lab Number Test Package : FLEET

Unique Number : 10842791

: PCA0103581 : 06066114

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 19 Jan 2024 Diagnosed : 22 Jan 2024

Diagnostician : Wes Davis

Transervice - Shop 1369 - Berkeley-Waxahachie 710 Ovilla Road Waxahachie, TX US 75167

Contact: Robert Beal rbeal@transervice.com

T: (972)923-9928 F: (972)923-9919

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)