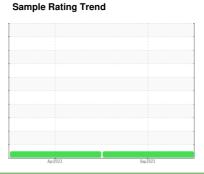


# **OIL ANALYSIS REPORT**

# (89533X) Walgreens [Walgreens] 136A66206

**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

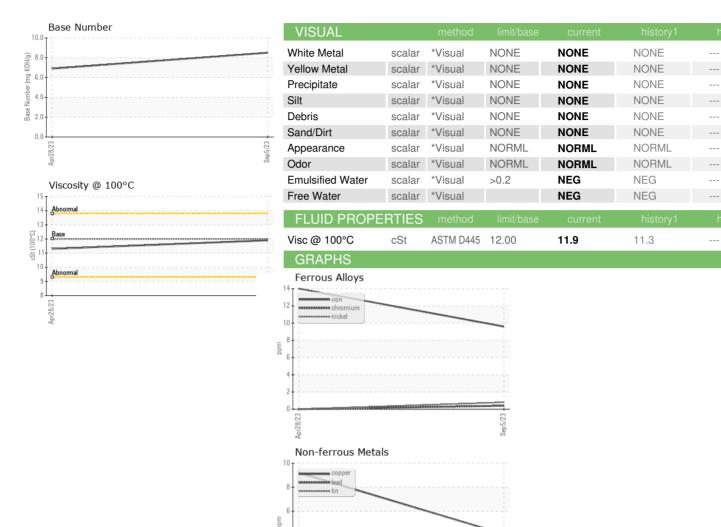
## **Fluid Condition**

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

Sample Number   Client Info   PCA0105905   PCA0091476				Apr2023	Sep2023		
Client Info	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age         mls         Client Info         636825         611700	Sample Number		Client Info		PCA0105905	PCA0091476	
Oil Age         mls         Client Info         25125         50000	Sample Date		Client Info		05 Sep 2023	28 Apr 2023	
Coli   Changed   Client Info   NoRMAL   NORMAL	Machine Age	mls	Client Info		636825	611700	
Cilichanged   Cilicht Info   NORMAL	Oil Age	mls	Client Info		25125	50000	
NORMAL   NORMAL   NORMAL   CONTAMINATION   method   imit/base   current   history1   history2   history2     history3     history2     history2   history3     history4   history4   history4   history4   history4   history4   history4   history4   history4   history5     history5   history5   history6   history7   history6   history7   history7   history8   history9   history9   history9   history9   history9   history9   history9   history8   history9   history9	•		Client Info			Changed	
Fuel	Sample Status						
WEAR METALS	CONTAMINATI	ON	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
Irron	Glycol		WC Method		NEG	NEG	
Irron	MEAD METALS	2	mothod	limit/base	ourront	history1	history?
Chromium							
Nickel					-		
Titanium		ppm					
Silver	Nickel			>2			
Aluminum	Titanium	ppm	ASTM D5185m				
Lead	Silver	ppm	ASTM D5185m	>2	0	0	
Copper         ppm         ASTM D5185m         >85         4         9	Aluminum	ppm	ASTM D5185m	>25	<1	5	
Tin	Lead	ppm	ASTM D5185m	>45	<1	0	
Vanadium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         2         1            Barium         ppm         ASTM D5185m         0         0         0            Molybdenum         ppm         ASTM D5185m         0         61         64            Manganese         ppm         ASTM D5185m         0         <1	Copper	ppm	ASTM D5185m	>85	4	9	
Cadmium         ppm         ASTM D5185m         0         0            ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         2         1            Barium         ppm         ASTM D5185m         0         0         0            Molybdenum         ppm         ASTM D5185m         50         61         64            Manganese         ppm         ASTM D5185m         0         <1	Tin	ppm	ASTM D5185m	>4	<1	0	
ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         2         1            Barium         ppm         ASTM D5185m         0         0         0            Molybdenum         ppm         ASTM D5185m         50         61         64            Manganese         ppm         ASTM D5185m         0         <1	Vanadium	ppm	ASTM D5185m		0	0	
Boron   ppm   ASTM D5185m   2   2   1	Cadmium	ppm	ASTM D5185m		0	0	
Barium         ppm         ASTM D5185m         0         0         0            Molybdenum         ppm         ASTM D5185m         50         61         64            Manganese         ppm         ASTM D5185m         0         <1         0            Magnesium         ppm         ASTM D5185m         950         1011         1051            Calcium         ppm         ASTM D5185m         1050         1093         1215            Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         995         1088         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         61         64            Manganese         ppm         ASTM D5185m         0         <1	Boron	ppm	ASTM D5185m	2	2	1	
Manganese         ppm         ASTM D5185m         0         <1         0            Magnesium         ppm         ASTM D5185m         950         1011         1051            Calcium         ppm         ASTM D5185m         1050         1093         1215            Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         >20         3         5            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624<	Barium	ppm	ASTM D5185m	0	0	0	
Magnesium         ppm         ASTM D5185m         950         1011         1051            Calcium         ppm         ASTM D5185m         1050         1093         1215            Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         >20         3         5            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Sulfation         Abs/.1mm         *ASTM D7415 <td>Molybdenum</td> <td>ppm</td> <td>ASTM D5185m</td> <td>50</td> <th>61</th> <td>64</td> <td></td>	Molybdenum	ppm	ASTM D5185m	50	61	64	
Magnesium         ppm         ASTM D5185m         950         1011         1051            Calcium         ppm         ASTM D5185m         1050         1093         1215            Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         >20         3         5            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Sulfation         Abs/.1mm         *ASTM D7415 <td>Manganese</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <th>&lt;1</th> <td>0</td> <td></td>	Manganese	ppm	ASTM D5185m	0	<1	0	
Calcium         ppm         ASTM D5185m         1050         1093         1215            Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         2         <1	Magnesium	ppm	ASTM D5185m	950	1011	1051	
Phosphorus         ppm         ASTM D5185m         995         1088         1092            Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         2         <1            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         *ASTM D7414         >25 </td <td>Calcium</td> <td></td> <td>ASTM D5185m</td> <td>1050</td> <th>1093</th> <td>1215</td> <td></td>	Calcium		ASTM D5185m	1050	1093	1215	
Zinc         ppm         ASTM D5185m         1180         1308         1360            Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         2         <1	Phosphorus				1088	1092	
Sulfur         ppm         ASTM D5185m         2600         3800         3410            CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         2         <1							
Silicon         ppm         ASTM D5185m         >30         24         4            Sodium         ppm         ASTM D5185m         2         <1            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	Sulfur						
Sodium         ppm         ASTM D5185m         2         <1            Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	CONTAMINAN	TS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         3         5            INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.4         0.6            Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	Silicon	ppm	ASTM D5185m	>30	24	4	
INFRA-RED	Sodium	ppm	ASTM D5185m		2	<1	
Soot %         *ASTM D7844         >3         0.4         0.6            Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	Potassium	ppm	ASTM D5185m	>20	3	5	
Nitration         Abs/cm         *ASTM D7624         >20         8.2         9.7            Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	Soot %	%	*ASTM D7844	>3	0.4	0.6	
Sulfation         Abs/.1mm         *ASTM D7415         >30         17.9         21.2            FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         14.2         18.2	Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.7	
Oxidation Abs/.1mm *ASTM D7414 >25 <b>14.2</b> 18.2	Sulfation						
	FLUID DEGRAD	ATION	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 8.5 6.9	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	18.2	
	Base Number (BN)	mg KOH/g	ASTM D2896		8.5	6.9	



# **OIL ANALYSIS REPORT**







Certificate L2367

Laboratory Sample No. Lab Number Unique Number

Test Package : FLEET

cSt (100°C)

: PCA0105905 : 05950651 : 10646610

Viscosity @ 100°C

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received Diagnosed

: 15 Sep 2023 : Wes Davis Diagnostician

: 13 Sep 2023

Base Number

8.0 (B/H<sub>0</sub>) (B/H<sub>0</sub>) (B/H<sub>0</sub>)

£ 5.0 Number ( 2.0 1.0 0.0

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)