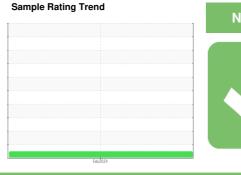


# **OIL ANALYSIS REPORT**

# No Info On Sample [No Info On Sample] NOT GIVEN PCA0112816

**Diesel Engine** 

PETRO CANADA DURON SHP 10W30 (--- GAL)





## DIAGNOSIS

### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Metal levels are typical for a new component breaking in.

### Contamination

There is no indication of any contamination in the

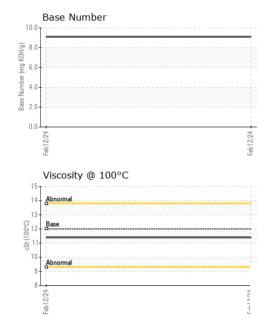
### **Fluid Condition**

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

SAMPLE INFORMATION   method   fimit/base   current   history1   history2	āAL)				Feb2024		
Sample Date	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age         hrs         Client Info         696	Sample Number		Client Info		PCA0112816		
Oil Age         hrs         Client Info         109	Sample Date		Client Info		12 Feb 2024		
Oil Changed Sample Status         Client Info MoRMAL         Changed NORMAL	Machine Age	hrs	Client Info		696		
Sample Status	Oil Age	hrs	Client Info		109		
CONTAMINATION         method         limit/base         current         history1         history2           Fuel         WC Method         >5         <1.0	Oil Changed		Client Info		Changed		
Fuel   WC Method   S5   C1.0   C1.0	Sample Status				NORMAL		
Water Glycol         WC Method         >0.2         NEG             WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >100         7             Nickel         ppm         ASTM D5185m         >20         <1             Nickel         ppm         ASTM D5185m         >4         0             Sliver         ppm         ASTM D5185m         >4         0             Sliver         ppm         ASTM D5185m         >40         0             Aluminum         ppm         ASTM D5185m         >20         2             Lead         ppm         ASTM D5185m         >40         0             Copper         ppm         ASTM D5185m         >15         0             Vanadium         ppm         ASTM D5185m         0              Vanadium         ppm         ASTM D5185m         0         0 </th <th>CONTAMINAT</th> <th>ION</th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0		
WEAR METALS	Water		WC Method	>0.2	NEG		
Iron	Glycol		WC Method		NEG		
Chromium	WEAR METAL	S	method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>100	7		
Titanium         ppm         ASTM D5185m         <1             Silver         ppm         ASTM D5185m         >3         <1	Chromium	ppm	ASTM D5185m	>20	<1		
Silver	Nickel	ppm	ASTM D5185m	>4	0		
Aluminum	Titanium	ppm	ASTM D5185m		<1		
Lead         ppm         ASTM D5185m         >40         0             Copper         ppm         ASTM D5185m         >330         1             Tin         ppm         ASTM D5185m         >15         0             Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           ADDITIVES           Barium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Barium         ppm         ASTM D5185m         0         0             Barium         ppm         ASTM D5185m         0         54             Magnesium         ppm         ASTM D5185m         0         41             Calcium         ppm         ASTM D5185m         995         924	Silver	ppm	ASTM D5185m	>3	<1		
Copper         ppm         ASTM D5185m         >330         1             Tin         ppm         ASTM D5185m         >15         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         54             Manganese         ppm         ASTM D5185m         0         -1             Magnesium         ppm         ASTM D5185m         950         343             Calcium         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         1180         1044	Aluminum	ppm	ASTM D5185m	>20	2		
Tin	Lead	ppm	ASTM D5185m	>40	0		
Vanadium         ppm         ASTM D5185m         0             Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         8             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         54             Manganese         ppm         ASTM D5185m         950         843             Magnesium         ppm         ASTM D5185m         950         843             Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         292         22             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1	Copper	ppm	ASTM D5185m	>330	1		
Cadmium         ppm         ASTM D5185m         0             ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         8             Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         54             Manganese         ppm         ASTM D5185m         0         <1	Tin	ppm	ASTM D5185m	>15	0		
ADDITIVES	Vanadium	ppm	ASTM D5185m		0		
Boron   ppm   ASTM D5185m   2   8       Barium   ppm   ASTM D5185m   0   0   0         Molybdenum   ppm   ASTM D5185m   50   54       Manganese   ppm   ASTM D5185m   0   <1         Manganesium   ppm   ASTM D5185m   950   843         Manganesium   ppm   ASTM D5185m   950   843         Manganesium   ppm   ASTM D5185m   1050   909         Manganesium   ppm   ASTM D5185m   995   924         Manganesium   ppm   ASTM D5185m   995   924         Manganesium   ppm   ASTM D5185m   2600   2886         Manganesium   ppm   ASTM D5185m   2600   2886         Manganesium   ppm   ASTM D5185m   2600   2886         Manganesium   ppm   ASTM D5185m   225   3         Manganesium   ppm   ASTM D5185m   225   3         Manganesium   ppm   ASTM D5185m   220   2         Manganesium   ppm   ASTM D5185m   20   2           Manganesium   ppm   ASTM D5185m   20   2           Manganesium   ppm   ASTM D5185m   20   2           Manganesium   ppm   ASTM D5185m   20   2           Manganesium   ppm   ASTM D5185m   20   2             Manganesium   ppm   ASTM D5185m   20   2             Manganesium   ppm   ASTM D5185m   20   2               Manganesium   ppm   ASTM D5185m   20   2                   Manganesium   ppm   ASTM D5185m   20   2	Cadmium	ppm	ASTM D5185m		0		
Barium         ppm         ASTM D5185m         0         0             Molybdenum         ppm         ASTM D5185m         50         54             Manganese         ppm         ASTM D5185m         0         <1             Magnesium         ppm         ASTM D5185m         950         843             Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         1180         1044             Zinc         ppm         ASTM D5185m         2600         2886             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         2             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum         ppm         ASTM D5185m         50         54             Manganese         ppm         ASTM D5185m         0         <1             Magnesium         ppm         ASTM D5185m         950         843             Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         1050         909             Zinc         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         2600         2886             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         2             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D	Boron	ppm	ASTM D5185m	2	8		
Manganese         ppm         ASTM D5185m         0         <1             Magnesium         ppm         ASTM D5185m         950         843             Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         1180         1044             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624	Barium	ppm	ASTM D5185m	0	0		
Magnesium         ppm         ASTM D5185m         950         843             Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         1180         1044             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7414	Molybdenum	ppm	ASTM D5185m	50	54		
Calcium         ppm         ASTM D5185m         1050         909             Phosphorus         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         1180         1044             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         5.0             Nitration         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         *as TM D7414 <td< td=""><td>Manganese</td><td>ppm</td><td>ASTM D5185m</td><td>0</td><th>&lt;1</th><td></td><td></td></td<>	Manganese	ppm	ASTM D5185m	0	<1		
Phosphorus         ppm         ASTM D5185m         995         924             Zinc         ppm         ASTM D5185m         1180         1044             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7624         >20         5.0             Nitration         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm	Magnesium	ppm		950	843		
Zinc         ppm         ASTM D5185m         1180         1044             Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         >20         2             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM	Calcium	ppm	ASTM D5185m	1050	909		
Sulfur         ppm         ASTM D5185m         2600         2886             CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5		ppm		995	924		
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5		ppm	ASTM D5185m	1180	1044		
Silicon         ppm         ASTM D5185m         >25         3             Sodium         ppm         ASTM D5185m         0              Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	Sulfur	ppm	ASTM D5185m	2600	2886		
Sodium         ppm         ASTM D5185m         0             Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         2             INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	Silicon	ppm	ASTM D5185m	>25	3		
INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	Sodium	ppm	ASTM D5185m		0		
Soot %         %         *ASTM D7844         >3         0.3             Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	Potassium	ppm	ASTM D5185m	>20	2		
Nitration         Abs/cm         *ASTM D7624         >20         5.0             Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         17.7             FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         13.5	Soot %	%	*ASTM D7844	>3	0.3		
FLUID DEGRADATION method limit/base current history1 history2  Oxidation Abs/.1mm *ASTM D7414 >25 13.5	Nitration	Abs/cm	*ASTM D7624	>20	5.0		
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30	17.7		
	FLUID DEGRAI	OITAC	method	limit/base	current	history1	history2
Base Number (BN) mg KOH/g ASTM D2896 9.1	Oxidation	Abs/.1mm	*ASTM D7414	>25	13.5		
	Base Number (BN)	mg KOH/g	ASTM D2896		9.1		

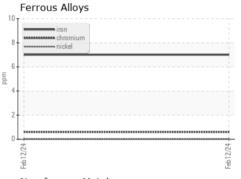


# **OIL ANALYSIS REPORT**

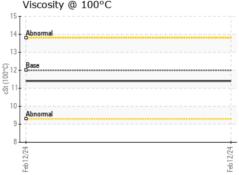


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Precipitate	scalar	*Visual	NONE	NONE		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML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

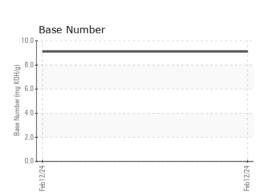
FLUID PROPE	ERITES	method	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	12.00	11.4		



10	Non-ferrous Metals
10	copper
8-	Personnense   Pad
	anananananan [][]
6-	
mdd 4.	
7.	
2 -	
0.1	24 
	Feb 12/24
	Viscosity @ 1000C



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)





Certificate L2367

Laboratory Sample No. Lab Number : 06096671

Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : PCA0112816

Unique Number: 10889524

Received **Tested** Diagnosed

: 22 Feb 2024 : 23 Feb 2024 : 23 Feb 2024 - Wes Davis

Transervice - Shop 1364 - Berkeley-Mt. Vernon 5100 Lake Terrace NE

Mt. Vernon, IL US 62864 Contact: Erien White

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. ewhite@transervice.com T: (618)244-8726 F: (618)244-8791

Report Id: TSV1364 [WUSCAR] 06096671 (Generated: 02/23/2024 09:17:31) Rev: 1

Submitted By: Erien White