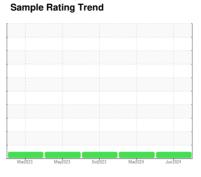


# **OIL ANALYSIS REPORT**

# (51468Z) Walgreens - Tractor [Walgreens - Tractor] 136A63278

**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

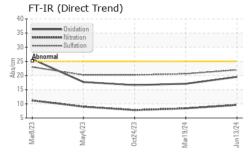
### **Fluid Condition**

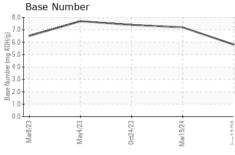
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

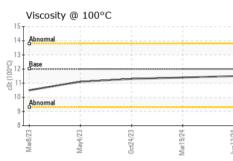
Cample Number   Client Info   PCA0093899   PCA0093890   PCA0093922   Sample Date   Client Info   13 Jun 2024   19 Mar 2024   24 Oct 2023   Machine Age   mls   Client Info   54879   187402   133370   Oli Age   mls   Client Info   54879   187402   54879   Oli Changed   Client Info   Not Changd   Nor Changd   NoRMAL   NORMAL	SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Date		ATION		mmbasc		· ·	
Machine Age         mls         Client Info         207644         187402         133370           Oil Age         mls         Client Info         54879         187402         54879           Oil Changed         Client Info         Not Changd         Not Changd         NVA           Sample Status         Image: Client Info         NoRMAL         NORMAL         NORMAL           CONTAMINATION         method         Imitibase         current         history1         history2           Fuel         WC Method         >5         <1.0         <1.0         <1.0         <1.0           Water         WC Method         >0.2         NEG         NEG         NEG         NEG           Olicycol         WEAR METALS         method         imitibase         current         history1         history1           Iron         ppm         ASTM D5185m         >6         4         2         2         2           Iron         ppm         ASTM D5185m         >2         <1         0         <1           Silver         ppm         ASTM D5185m         >3         3         <1         <1         <1           Aluminum         ppm         ASTM D5185m         >30 <th< td=""><td></td><td></td><td></td><td></td><th></th><td></td><td></td></th<>							
Oil Age         mls         Client Info         54879         187402         54879           Oil Changed Sample Status         Client Info         Not Changd Not Changd Not Changd Not Changd Not Changd Nor C		mle					
Client Info   Not Changd   NORMAL   NORMAL   NORMAL	-						
NORMAL   NORMAL   NORMAL   CONTAMINATION   method   limit/base   current   history1   history2	-	1113					
Fuel			Ciletit IIIIO			Ü	
Fuel		N	method	limit/base			
Water Glycol         WC Method         >0.2         NEG         NEG         NEG         NEG           WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         33         21         16           Chromium         ppm         ASTM D5185m         >5         4         2         2           Nickel         ppm         ASTM D5185m         >2         <1         0         <1           Silver         ppm         ASTM D5185m         >2         <1         0         <1           Aluminum         ppm         ASTM D5185m         >30         8         7         6           Lead         ppm         ASTM D5185m         >30         0         0         0           Copper         ppm         ASTM D5185m         >30         0         0         0           Cadmium         ppm         ASTM D5185m         >5         <1         <1         0           Vanadium         ppm         ASTM D5185m         0         0         0         <1           Cadmium         ppm         ASTM D5185m         0         0         0 <td></td> <td></td> <td></td> <td></td> <th></th> <td></td> <td></td>							
WEAR METALS							
WEAR METALS         method         limit/base         current         history1         history2           Iron         ppm         ASTM D5185m         >80         33         21         16           Chromium         ppm         ASTM D5185m         >5         4         2         2           Nickel         ppm         ASTM D5185m         >2         <1				7 O.L	-		
Irron				limit/base	current	history1	history2
Chromium         ppm         ASTM D5185m         >5         4         2         2           Nickel         ppm         ASTM D5185m         >2         <1		onm					
Nickel	- 1						
Silver					-		
Silver				>4			
Aluminum         ppm         ASTM D5185m         >30         8         7         6           Lead         ppm         ASTM D5185m         >30         0         0         0           Copper         ppm         ASTM D5185m         >150         28         24         54           Tin         ppm         ASTM D5185m         >5         <1				. 2			
Lead	1						
Copper         ppm         ASTM D5185m         >150         28         24         54           Tin         ppm         ASTM D5185m         >5         <1					-		
Tin							
Vanadium         ppm         ASTM D5185m         0         0         <1           Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         6         6         4           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         61         63         67           Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         978         934         923           Calcium         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         180         13008         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         his					_		
Cadmium         ppm         ASTM D5185m         0         0         0           ADDITIVES         method         limit/base         current         history1         history2           Boron         ppm         ASTM D5185m         2         6         6         4           Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         61         63         67           Manganese         ppm         ASTM D5185m         50         61         63         67           Magnesium         ppm         ASTM D5185m         950         978         934         923           Calcium         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8 <t< td=""><td></td><td></td><td></td><td>&gt;5</td><th></th><td></td><td></td></t<>				>5			
ADDITIVES							
Boron	'	opm					
Barium         ppm         ASTM D5185m         0         0         0         0           Molybdenum         ppm         ASTM D5185m         50         61         63         67           Manganese         ppm         ASTM D5185m         0         1         <1	ADDITIVES		method	limit/base			
Molybdenum         ppm         ASTM D5185m         50         61         63         67           Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         978         934         923           Calcium         ppm         ASTM D5185m         1050         1176         1114         1137           Phosphorus         ppm         ASTM D5185m         1078         1008         935           Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current		opm					
Manganese         ppm         ASTM D5185m         0         1         <1         <1           Magnesium         ppm         ASTM D5185m         950         978         934         923           Calcium         ppm         ASTM D5185m         1050         1176         1114         1137           Phosphorus         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844		opm				-	-
Magnesium         ppm         ASTM D5185m         950         978         934         923           Calcium         ppm         ASTM D5185m         1050         1176         1114         1137           Phosphorus         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >		opm					
Calcium         ppm         ASTM D5185m         1050         1176         1114         1137           Phosphorus         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/.1mm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method		opm					
Phosphorus         ppm         ASTM D5185m         995         1078         1008         935           Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/	,						
Zinc         ppm         ASTM D5185m         1180         1308         1241         1233           Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6		opm			-		
Sulfur         ppm         ASTM D5185m         2600         2731         2795         2469           CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         3         2         0           Potassium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6		opm					
CONTAMINANTS         method         limit/base         current         history1         history2           Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         3         2         0           Potassium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6					1308		
Silicon         ppm         ASTM D5185m         >20         8         6         4           Sodium         ppm         ASTM D5185m         3         2         0           Potassium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6				2600	2731		
Sodium         ppm         ASTM D5185m         3         2         0           Potassium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6	CONTAMINANT	S		limit/base	current	history1	history2
Potassium         ppm         ASTM D5185m         >20         19         15         16           INFRA-RED         method         limit/base         current         history1         history2           Soot %         %         *ASTM D7844         >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6				>20			
INFRA-RED		opm			3		
Soot %         %         *ASTM D7844 >3         1         0.7         0.5           Nitration         Abs/cm         *ASTM D7624 >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415 >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414 >25         19.5         17.1         16.6	Potassium p	opm	ASTM D5185m	>20	19	15	16
Nitration         Abs/cm         *ASTM D7624         >20         9.6         8.4         7.8           Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION method limit/base current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6	INFRA-RED		method	limit/base	current	history1	history2
Sulfation         Abs/.1mm         *ASTM D7415         >30         22.0         20.6         20.2           FLUID DEGRADATION         method         limit/base         current         history1         history2           Oxidation         Abs/.1mm         *ASTM D7414         >25         19.5         17.1         16.6			*ASTM D7844	>3	1	0.7	0.5
FLUID DEGRADATION     method     limit/base     current     history1     history2       Oxidation     Abs/.1mm     *ASTM D7414     >25     19.5     17.1     16.6	Nitration /	Abs/cm	*ASTM D7624	>20	9.6	8.4	7.8
Oxidation Abs/.1mm *ASTM D7414 >25 <b>19.5</b> 17.1 16.6	Sulfation A	Abs/.1mm	*ASTM D7415	>30	22.0	20.6	20.2
	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
Base Number (BN)         mg KOH/g         ASTM D2896         5.8         7.2         7.4	Oxidation A	Abs/.1mm	*ASTM D7414	>25	19.5	17.1	16.6
	Base Number (BN)	ng KOH/g	ASTM D2896		5.8	7.2	7.4



# **OIL ANALYSIS REPORT**



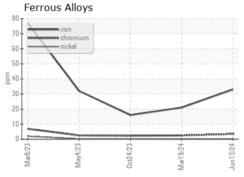




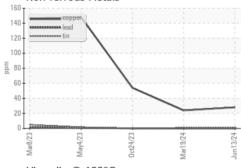
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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

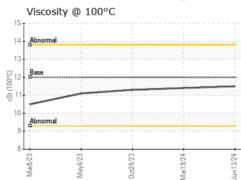
FLUID PROPE		method			riistory i	History
Visc @ 100°C	cSt	ASTM D445	12.00	11.5	11.4	11.3

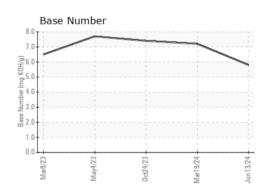
### **GRAPHS**















Certificate 12367

Laboratory Sample No.

Lab Number : 06214129 Unique Number : 11086993

: PCA0093899 Test Package : FLEET

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 18 Jun 2024 **Tested** : 20 Jun 2024

Diagnosed : 20 Jun 2024 - Wes Davis

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

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

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)

F: (951)924-7151