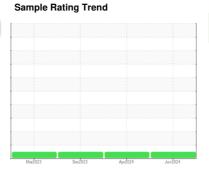


OIL ANALYSIS REPORT

(97207X) Walgreens - Tractor [Walgreens - Tractor] 136A62118

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

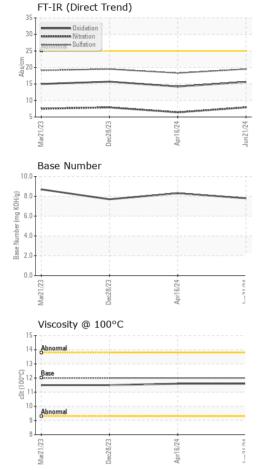
Fluid Condition

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 PCA0127898 PCA0117858 PCA0105462 Sample Date Client Info 21 Jun 2024 16 Apr 2024 28 Dec 2023 Machine Age mls Client Info 407085 394274 382955 301 Age mls Client Info 407085 394274 382955 301 Age mls Client Info 407085 394274 382955 301 Age MS Client Info 407085 394274 382955 301 Age MS MS MS MS MS MS MS M	SAMPLE INFORM	ΔΤΙΩΝ	method	limit/base	current	history1	history2
Sample Date		ATION		IIIIIII Dase		· ·	
Machine Age mls Client Info 407085 394274 382955 Oil Age mls Client Info 40125 25000 48417 Oil Changed Client Info Changed Changed Changed NORMAL NORMAL Sample Status WC Method NEGMAL NORMAL NORMAL NORMAL CONTAMINATION method limit/base current history1 history2 Fuel WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Brom MEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Brom ASTM D5185m >80 9 8 13 Chromium ppm ASTM D5185m >5 <1							
Oil Age mls Client Info 40125 25000 48417 Oil Changed Sample Status Client Info Changed Changed Changed Changed Changed NORMAL NORMA		mlo					
Oil Changed Sample Status	-						
NORMAL NORMAL NORMAL NORMAL		1115					
CONTAMINATION method limit/base current history1 history2 Fuel WC Method >5 <1.0			Ciletit IIIIO			Ü	
Fuel WC Method S5 C1.0 C1.0 C1.0 C1.0 Water WC Method S0.2 NEG Neg		201		11 11 11			
Water Glycol WC Method WC Method >0.2 NEG NEG NEG NEG NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >80 9 8 13 Chromium ppm ASTM D5185m >5 <1		N					
WEAR METALS							
WEAR METALS				>0.2	-		
Iron			WC Method		NEG	NEG	NEG
Chromium ppm ASTM D5185m >5 <1 1 <1 Nickel ppm ASTM D5185m >2 0 1 0 Titanium ppm ASTM D5185m >3 0 0 0 Silver ppm ASTM D5185m >30 5 4 5 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 <1	WEAR METALS		method	limit/base	current	history1	history2
Nickel		opm			9		
Titanium ppm ASTM D5185m 0 <1 0 Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 5 4 5 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >150 1 2 4 Tin ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 -1 0 Cadmium ppm ASTM D5185m 0 -1 0 Cadmium ppm ASTM D5185m 0 -1 0 ADDITIVES method limit/base current history1 history2 Barium ppm ASTM D5185m 0 -1 4 4 Barium ppm ASTM D5185m 0 -1 -1 0 0 Magnesium <td< td=""><td>Chromium p</td><td>opm</td><td>ASTM D5185m</td><td>>5</td><th><1</th><td>1</td><td><1</td></td<>	Chromium p	opm	ASTM D5185m	>5	<1	1	<1
Silver ppm ASTM D5185m >3 0 0 0 Aluminum ppm ASTM D5185m >30 5 4 5 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >150 1 2 4 Tin ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 1 0 1 0 Cadmium ppm ASTM D5185m 0 1 0 1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 0 Barium ppm ASTM D5185m 0 0 0 0 0 0 Manganesium ppm ASTM D5185m 50 59 58 61 1 0 0 0	Nickel	opm	ASTM D5185m	>2		1	0
Aluminum ppm ASTM D5185m >30 5 4 5 Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >150 1 2 4 Tin ppm ASTM D5185m 5 0 2 0 Vanadium ppm ASTM D5185m 0 1 0 Cadmium ppm ASTM D5185m 0 1 0 Cadmium ppm ASTM D5185m 0 0 1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron <td>Titanium</td> <td>opm</td> <td>ASTM D5185m</td> <td></td> <th>0</th> <td><1</td> <td>0</td>	Titanium	opm	ASTM D5185m		0	<1	0
Lead ppm ASTM D5185m >30 0 0 0 Copper ppm ASTM D5185m >150 1 2 4 Tin ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 -1 0 Cadmium ppm ASTM D5185m 0 -1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 <1 4 Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 0 59 58 61 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 0 <1 <1 1 0 Calcium ppm ASTM D5185m 0 1339 1150 1126 </td <td>Silver</td> <td>opm</td> <td></td> <td></td> <th></th> <td></td> <td></td>	Silver	opm					
Copper ppm ASTM D5185m >150 1 2 4 Tin ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 <1	Aluminum	opm	ASTM D5185m	>30	5	4	5
Tin ppm ASTM D5185m >5 0 2 0 Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 1 0 ADDITIVES method limit/base current history1 nistory2 ADDITIVES method limit/base current history1 nistory2 ADDITIVES method limit/base current history1 history2 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 0 <td>Lead</td> <td>opm</td> <td>ASTM D5185m</td> <td>>30</td> <th>0</th> <td>0</td> <td>0</td>	Lead	opm	ASTM D5185m	>30	0	0	0
Vanadium ppm ASTM D5185m 0 <1 0 Cadmium ppm ASTM D5185m 0 1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 <1 4 Barium ppm ASTM D5185m 0 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 58 61 Manganese ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current	Copper	opm	ASTM D5185m	>150	1		4
Cadmium ppm ASTM D5185m 0 1 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 5 <1	Tin p	opm	ASTM D5185m	>5	0	2	0
ADDITIVES	Vanadium p	opm	ASTM D5185m		0	<1	0
Boron	Cadmium	opm	ASTM D5185m		0	1	0
Barium ppm ASTM D5185m 0 0 0 0 Molybdenum ppm ASTM D5185m 50 59 58 61 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 1050 1139 1150 1126 Phosphorus ppm ASTM D5185m 1083 1021 1036 Zinc ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m 20 4 4 5 Sodium ppm ASTM D5185m 20 3 1 2 INFRA-RED method limit/base current <th>ADDITIVES</th> <th></th> <th>method</th> <th>limit/base</th> <th>current</th> <th>history1</th> <th>history2</th>	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 59 58 61 Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 1050 1139 1150 1126 Phosphorus ppm ASTM D5185m 1083 1021 1036 Zinc ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m <	Boron	opm	ASTM D5185m	2	5	<1	4
Manganese ppm ASTM D5185m 0 <1 <1 0 Magnesium ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 1050 1139 1150 1126 Phosphorus ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 995 1306 1229 1329 Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D784	Barium p	opm	ASTM D5185m	0	0	0	0
Magnesium ppm ASTM D5185m 950 966 915 1026 Calcium ppm ASTM D5185m 1050 1139 1150 1126 Phosphorus ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 1180 1306 1229 1329 Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 20 3 1 2 Potassium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % "ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm "ASTM D7415 <	Molybdenum	opm	ASTM D5185m	50	59		
Calcium ppm ASTM D5185m 1050 1139 1150 1126 Phosphorus ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 1180 1306 1229 1329 Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 20 3 1 2 Potassium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION *ASTM D	Manganese p	opm	ASTM D5185m	0	<1	<1	0
Phosphorus ppm ASTM D5185m 995 1083 1021 1036 Zinc ppm ASTM D5185m 1180 1306 1229 1329 Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 2 2 <1	Magnesium	opm			966		
Zinc ppm ASTM D5185m 1180 1306 1229 1329 Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 2 2 <1	Calcium	opm	ASTM D5185m	1050	1139	1150	1126
Sulfur ppm ASTM D5185m 2600 3547 3547 3130 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 2 2 <1	Phosphorus	opm		995			1036
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 2 2 <1	Zinc	opm	ASTM D5185m	1180	1306	1229	1329
Silicon ppm ASTM D5185m >20 4 4 5 Sodium ppm ASTM D5185m 2 2 <1 Potassium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7			ASTM D5185m	2600	3547	3547	3130
Sodium ppm ASTM D5185m 2 2 <1 Potassium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	CONTAMINANT	S	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 3 1 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Silicon	opm		>20			5
INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Sodium	opm	ASTM D5185m		2	2	
Soot % % *ASTM D7844 >3 0.3 0.2 0.3 Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Potassium	opm	ASTM D5185m	>20	3	1	2
Nitration Abs/cm *ASTM D7624 >20 7.9 6.4 7.9 Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	INFRA-RED		method	limit/base	current	history1	history2
Sulfation Abs/.1mm *ASTM D7415 >30 19.5 18.3 19.5 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Soot %	%	*ASTM D7844	>3	0.3	0.2	0.3
FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Nitration	Abs/cm	*ASTM D7624	>20	7.9	6.4	7.9
Oxidation Abs/.1mm *ASTM D7414 >25 15.6 14.2 15.7	Sulfation /	Abs/.1mm	*ASTM D7415	>30	19.5	18.3	19.5
	FLUID DEGRADA	NOITA	method	limit/base	current	history1	history2
	Oxidation /	Abs/.1mm	*ASTM D7414	>25	15.6	14.2	15.7
					7.8	8.3	



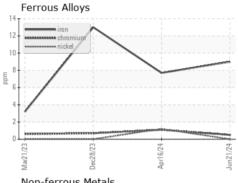
OIL ANALYSIS REPORT



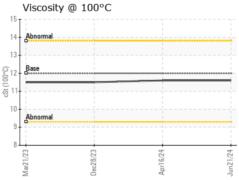
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual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

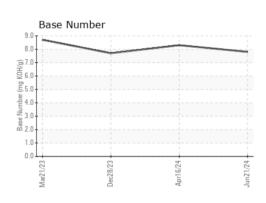
FLUID PROP	ERITES	method	limit/base		history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	11.6	11.6	11.5

GRAPHS



10 - -	Non-ferrous M	etals							
8	copper copper								
6-	 								
udd 4									
0		The state of the s							
00.10	C7/17/19/M	57/07Jan	Apr16/24	Jun21/24					
١	iscosity @ 10	0°C	Viscosity @ 100°C						









Certificate 12367

Laboratory Sample No.

Lab Number : 06226879 Unique Number : 11110372

Test Package : FLEET

: PCA0127898

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

Received **Tested** Diagnosed

: 02 Jul 2024 : 05 Jul 2024 : 05 Jul 2024 - Wes Davis

2370 East Main Street Woodland, CA US 95776

Transervice - Shop 1366 - Berkeley-Woodland

Contact: Gary Mann gmann@transervice.com T: (530)666-7771

F: (530)406-7971

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)

Report Id: TSV1366 [WUSCAR] 06226879 (Generated: 07/09/2024 17:57:18) Rev: 1

Submitted By: Gary Mann