

OIL ANALYSIS REPORT

Sample Rating Trend



5105 Component

Diesel Engine

Machine Id

PETRO CANADA DURON SHP 10W30 (--- G

DIAGNOSIS

Recommendation

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

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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 Date Client Info 28 Jun 2024 26 Apr 2024 Machine Age mls Client Info 0 0 0 Client Info 0 0 0 Client Info N/A N/A N/A NORMAL ABNORMAL NORMAL ABNORMAL ABNORMAL NORMAL ABNORMAL NORMAL ABNORMAL NORMAL ABNORMAL -	iAL)			Apr2024	Jun 2 024		
Client Info N/A N/A	SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Machine Age mls Client Info 0 0 0 0 0 0 0 0 0	Sample Number		Client Info		PCA0128870	PCA0123965	
Oil Age mls Client Info N/A	Sample Date		Client Info		28 Jun 2024	26 Apr 2024	
Oil Changed Client Info N/A N/A ABNORMAL Sample Status NoRMAL Sample Status Sample Stat	Machine Age	mls	Client Info		0	0	
CONTAMINATION method limit/base current history1 history2	Oil Age	mls	Client Info		0	0	
CONTAMINATION method limit/base current history1 history2	Oil Changed		Client Info		N/A	N/A	
Fuel	Sample Status				NORMAL	ABNORMAL	
Water Glycol WC Method WC Method >0.2 NEG NEG NEG WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >100 45 69 Chromium ppm ASTM D5185m >20 <1	CONTAMINAT	ION	method	limit/base	current	history1	history2
WEAR METALS	Fuel		WC Method	>5	<1.0	<1.0	
WEAR METALS	Water		WC Method	>0.2	NEG	NEG	
Chromium	Glycol		WC Method		NEG	NEG	
Chromium ppm ASTM D5185m >20 <1 1	WEAR METAL	.S	method	limit/base	current	history1	history2
Nickel	ron	ppm	ASTM D5185m	>100	45	69	
STIVENT STI	Chromium	ppm	ASTM D5185m	>20	<1	1	
Silver	Nickel	ppm	ASTM D5185m	>4	0	0	
Aluminum ppm ASTM D5185m >20 4 8 Lead ppm ASTM D5185m >40 2 5 Copper ppm ASTM D5185m >15 2 3 Vanadium ppm ASTM D5185m >15 2 3 Cadmium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 1 1 Calcium ppm ASTM D5185m 950 947 840 Calcium ppm ASTM D5185m 1050 1142 1170 Calcium ppm ASTM D5185m 1050 1142 1170 Calcium ppm ASTM D5185m 1050 1142 1170 Calcium ppm ASTM D5185m 1180 1372 1249 Calcium ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Contassium ppm ASTM D5185m >20 3 2 CONTAMINANTS method limit/base current history1 history2 Contassium ppm ASTM D5185m >20 8.8 10.3 Cadmium Abs/.1mm 'ASTM D7414 >25 16.8 18.7 Contassium Abs/.1mm 'ASTM D7415 >30 21.0 21.2 Contassium Abs/.1mm 'ASTM D7414 >25 16.8 18.7 Contadiation Abs/.1mm 'ASTM D7414 >25 16.8 18.7	Titanium	ppm	ASTM D5185m		<1	0	
Lead ppm ASTM D5185m >40 2 5 Copper ppm ASTM D5185m >330 123 ▲ 363 Vanadium ppm ASTM D5185m 0 0 Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 15 Barium ppm ASTM D5185m 0 0 1 Barium ppm ASTM D5185m 50 63 59 Magnesium ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 950 947 840 Calcium ppm ASTM D5185m 995 1244 1025 <	Silver	ppm	ASTM D5185m	>3	0	0	
Copper	Aluminum	ppm	ASTM D5185m	>20	4	8	
Tin	_ead	ppm	ASTM D5185m	>40	2	5	
Vanadium ppm ASTM D5185m 0 0 Cadmium ppm ASTM D5185m 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 2 4 15 Barium ppm ASTM D5185m 0 0 1 Wolybdenum ppm ASTM D5185m 50 63 59 Wanganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 950 947 840 Calcium ppm ASTM D5185m 950 1142 1170 Phosphorus ppm ASTM D5185m 995 1244 1025 Zinc ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1	Copper	ppm	ASTM D5185m	>330	123	▲ 363	
ADDITIVES	Γin	ppm	ASTM D5185m	>15	2	3	
ADDITIVES method limit/base current history1 history2	Vanadium	ppm	ASTM D5185m		0	0	
Boron ppm ASTM D5185m 2 4 15	Cadmium	ppm	ASTM D5185m		0	0	
Barium	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 50 63 59 Manganese ppm ASTM D5185m 0 <1	Boron	ppm	ASTM D5185m	2	4	15	
Manganese ppm ASTM D5185m 0 <1 1 Magnesium ppm ASTM D5185m 950 947 840 Calcium ppm ASTM D5185m 1050 1142 1170 Phosphorus ppm ASTM D5185m 995 1244 1025 Zinc ppm ASTM D5185m 1180 1372 1249 Sulfur ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m 20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 <td>Barium</td> <td>ppm</td> <td>ASTM D5185m</td> <td>0</td> <td>0</td> <td>1</td> <td></td>	Barium	ppm	ASTM D5185m	0	0	1	
Magnesium ppm ASTM D5185m 950 947 840 Calcium ppm ASTM D5185m 1050 1142 1170 Phosphorus ppm ASTM D5185m 995 1244 1025 Zinc ppm ASTM D5185m 1180 1372 1249 Sulfur ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m 20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30	Molybdenum	ppm	ASTM D5185m	50	63	59	
Description	Manganese	ppm	ASTM D5185m	0	<1	1	
Phosphorus ppm ASTM D5185m 995 1244 1025 Zinc ppm ASTM D5185m 1180 1372 1249 Sulfur ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base	Magnesium	ppm	ASTM D5185m	950	947	840	
Zinc ppm ASTM D5185m 1180 1372 1249 Sulfur ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Calcium	ppm	ASTM D5185m	1050	1142	1170	
Sulfur ppm ASTM D5185m 2600 2953 3091 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Phosphorus	ppm	ASTM D5185m	995	1244	1025	
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >25 8 14 Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Zinc	ppm	ASTM D5185m	1180	1372	1249	
Solition ppm ASTM D5185m >25 8 14	Sulfur	ppm	ASTM D5185m	2600	2953	3091	
Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Dxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	CONTAMINAN	ITS	method	limit/base	current	history1	history2
Sodium ppm ASTM D5185m 2 3 Potassium ppm ASTM D5185m >20 3 2 INFRA-RED method limit/base current history1 history2 Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Silicon	ppm	ASTM D5185m	>25	8	14	
INFRA-RED	Sodium	ppm	ASTM D5185m		2	3	
Soot % % *ASTM D7844 >3 0.8 0.9 Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Potassium	ppm	ASTM D5185m	>20	3	2	
Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	INFRA-RED		method	limit/base	current	history1	history2
Nitration Abs/cm *ASTM D7624 >20 8.8 10.3 Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Soot %	%	*ASTM D7844	>3	0.8	0.9	
Sulfation Abs/.1mm *ASTM D7415 >30 21.0 21.2 FLUID DEGRADATION method limit/base current history1 history2 Oxidation Abs/.1mm *ASTM D7414 >25 16.8 18.7	Nitration	Abs/cm	*ASTM D7624	>20		10.3	
Oxidation	Sulfation	Abs/.1mm	*ASTM D7415	>30		21.2	
	FLUID DEGRA	OITAC	method	limit/base	current	history1	history2
	Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	18.7	
	Base Number (BN)	mg KOH/g	ASTM D2896		8.4	7.2	



OIL ANALYSIS REPORT







Certificate 12367

Laboratory Sample No.

Lab Number : 06230018 Unique Number : 11113511

: PCA0128870

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

: 09 Jul 2024 Diagnosed

: 09 Jul 2024 - Wes Davis Test Package : MOB 1 (Additional Tests: TBN)

: 08 Jul 2024

To discuss this sample report, contact Customer Service at 1-800-237-1369. st - 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: (201)528-7053

Report Id: MILRUT [WUSCAR] 06230018 (Generated: 07/09/2024 10:35:50) Rev: 1

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