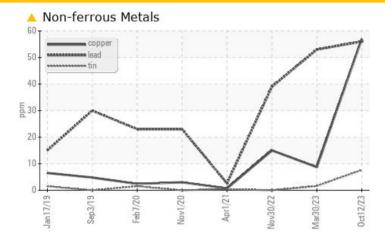


COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS								
Sample Status				ABNORMAL	ABNORMAL	NORMAL		
Lead	ppm	ASTM D5185m	>40	<u> </u>	5 3	39		

Customer Id: PERACCPCA Sample No.: PCA0105966 Lab Number: 05986203 Test Package: FLEET



To manage this report scan the QR code

To discuss the diagnosis or test data: Don Baldridge +1 <u>don.b505@comcast.net</u>

To change component or sample information: Customer Service +1 1-800-237-1369 customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

30 Mar 2023 Diag: Angela Borella

WEAR



Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The lead level is abnormal. All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

30 Nov 2022 Diag: Don Baldridge

NORMAL



Resample at the next service interval to monitor.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

01 Apr 2021 Diag: Wes Davis

NORMAL

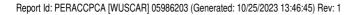


Resample at the next service interval to monitor. Please specify the component make and model with your next sample.All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.





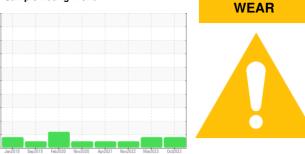
view report





OIL ANALYSIS REPORT





Machine Id 26679 Component

Diesel Engine Fluid

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

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

A Wear

The lead level is abnormal. All other component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

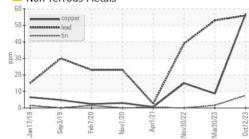
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

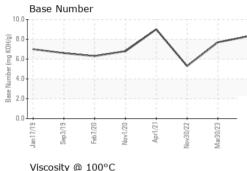
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0105966	PCA0093673	PCA0082250
Sample Date		Client Info		12 Oct 2023	30 Mar 2023	30 Nov 2022
Machine Age	mls	Client Info		372571	358395	342041
Oil Age	mls	Client Info		14176	38791	22437
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				ABNORMAL	ABNORMAL	NORMAL
CONTAMINATI	ON	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	70	52	39
Chromium	ppm	ASTM D5185m	>20	2	3	3
Nickel	ppm	ASTM D5185m	>4	2	1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	10	3	2
Lead	ppm	ASTM D5185m	>40	6	<mark>▲</mark> 53	39
Copper	ppm	ASTM D5185m	>330	57	9	15
Tin	ppm	ASTM D5185m	>15	8	2	0
Antimony	ppm	ASTM D5185m				
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Cadmium ADDITIVES	ppm	ASTM D5185m method	limit/base	0 current	0 history1	0 history2
	ppm ppm		limit/base	-		
ADDITIVES		method		current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	2	current 14	history1 8	history2 0
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0	current 14 0	history1 8 0	history2 0 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50	current 14 0 73	history1 8 0 77	history2 0 0 79
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	current 14 0 73 1	history1 8 0 77 <1	history2 0 0 79 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	current 14 0 73 1 1070	history1 8 0 77 <1 1188	history2 0 0 79 <1 1208 1575 1251
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	current 14 0 73 1 1070 1378	history1 8 0 77 <1 1188 1413	history2 0 0 79 <1 1208 1575
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm ppm	Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995	current 14 0 73 1 1070 1378 1316	history1 8 0 77 <1 1188 1413 1243	history2 0 0 79 <1 1208 1575 1251
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180	current 14 0 73 1 1070 1378 1316 1502	history1 8 0 77 <1 1188 1413 1243 1560	history2 0 0 79 <1 1208 1575 1251 1562
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600	current 14 0 73 1 1070 1378 1316 1502 4194	history1 8 0 77 <1 1188 1413 1243 1560 3580	history2 0 0 79 <1 1208 1575 1251 1562 4004
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600	current 14 0 73 1 1070 1378 1316 1502 4194 current	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 950 1050 995 1180 2600 Iimit/base >25	current 14 0 73 1 1070 1378 1316 1502 4194 current 8	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	2 0 50 950 1050 995 1180 2600 Iimit/base >25	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17 22	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24 24	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22 26
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm TS ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17 22 current	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24 24 history1	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22 26 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base >3	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17 22 current 0.4	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24 24 history1 0.5	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22 26 history2 0.7
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Solfur Solicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20 imit/base >3 >20	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17 22 current 0.4 10.1	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24 24 history1 0.5 13.8	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22 26 history2 0.7 16.9
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 imit/base >25 20 imit/base >3 >20 >30	current 14 0 73 1 1070 1378 1316 1502 4194 current 8 17 22 current 0.4 10.1 24.8	history1 8 0 77 <1 1188 1413 1243 1560 3580 history1 7 24 24 history1 0.5 13.8 30.6	history2 0 0 79 <1 1208 1575 1251 1562 4004 history2 9 22 26 history2 0.7 16.9 36.9

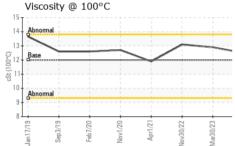


OIL ANALYSIS REPORT

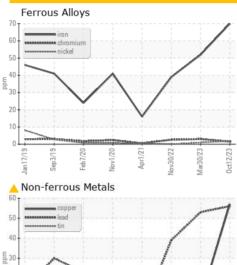
Non-ferrous Metals







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 PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	12.00	12.5	12.9	13.1
GRAPHS						



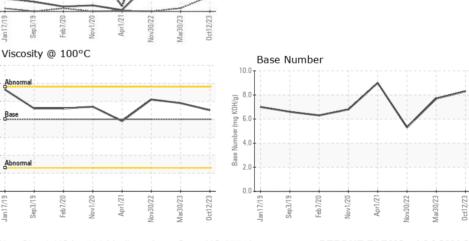
20 10 0

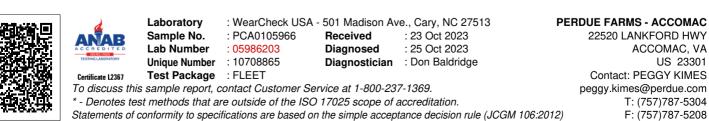
14

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10

cSt (100°C)





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

Submitted By: RANDY PARKER

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