

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

Machine Id 3572C AUTOCAR ACX

Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (48 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Metal levels are typical for a new component breaking in.

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.

																				1
																				1
																				1
																				4
																				17
																				4
																				1
																				÷
																				1
																				1
																				1
							ė.													

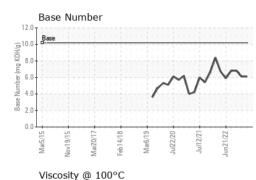


2015 Nov2015 Maz2017 Feb2018 Maz2019 Ju2020 Ju2021 Jua2022

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0094659	GFL0089360	GFL0089260
Sample Date		Client Info		28 Feb 2024	07 Sep 2023	03 Aug 2023
Machine Age	hrs	Client Info		5837	9037	4333
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	8	7	7
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m		3	2	1
Lead	ppm	ASTM D5185m	>30	8	1	1
Copper	ppm	ASTM D5185m	>35	2	<1	<1
Tin	ppm	ASTM D5185m	>4	2	<1	<1
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	50	20	12	14
Barium	ppm	ASTM D5185m	5	0	0	0
Molybdenum	ppm	ASTM D5185m	50	48	53	52
Manganese	ppm	ASTM D5185m	0	<1	1	<1
Magnesium	ppm ppm	ASTM D5185m ASTM D5185m	0 560	578	623	588
Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510	578 1508	623 1720	588 1688
Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780	578 1508 764	623 1720 772	588 1688 757
Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870	578 1508 764 977	623 1720 772 1060	588 1688 757 999
Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040	578 1508 764	623 1720 772 1060 3083	588 1688 757 999 2814
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 limit/base	578 1508 764 977 2348 current	623 1720 772 1060 3083 history1	588 1688 757 999 2814 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	0 560 1510 780 870 2040	578 1508 764 977 2348 current 8	623 1720 772 1060 3083 history1 5	588 1688 757 999 2814 history2 6
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 <i>limit/base</i> >+100	578 1508 764 977 2348 current 8 8	623 1720 772 1060 3083 history1 5 4	588 1688 757 999 2814 history2 6 5
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 >htt/base >+100	578 1508 764 977 2348 current 8 8 8 1	623 1720 772 1060 3083 history1 5 4 2	588 1688 757 999 2814 history2 6 5 2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 <i>limit/base</i> >+100	578 1508 764 977 2348 current 8 8 8 1 1 current	623 1720 772 1060 3083 history1 5 4 2 2 history1	588 1688 757 999 2814 history2 6 5 2 2 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 limit/base >20 limit/base	578 1508 764 977 2348 current 8 8 8 1 1 current 0	623 1720 772 1060 3083 history1 5 4 2 2 history1 0.1	588 1688 757 999 2814 history2 6 5 2 2 history2 0.1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	578 1508 764 977 2348 current 8 8 8 1 1 current 0 9.1	623 1720 772 1060 3083 history1 5 4 2 history1 0.1 9.6	588 1688 757 999 2814 history2 6 5 2 2 history2 0.1 9.3
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 560 1510 780 870 2040 limit/base >20 limit/base	578 1508 764 977 2348 current 8 8 8 1 1 current 0	623 1720 772 1060 3083 history1 5 4 2 2 history1 0.1	588 1688 757 999 2814 history2 6 5 2 2 history2 0.1
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m *ASTM D7844 *ASTM D7624 *ASTM D7415	0 560 1510 780 870 2040 limit/base >+100 >20 limit/base	578 1508 764 977 2348 current 8 8 8 1 1 current 0 9.1	623 1720 772 1060 3083 history1 5 4 2 history1 0.1 9.6 20.2 history1	588 1688 757 999 2814 history2 6 5 2 history2 0.1 9.3 19.6 history2
Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7845	0 560 1510 780 870 2040 Iimit/base >20 Iimit/base >20 S20 >30	578 1508 764 977 2348 current 8 8 8 1 1 current 0 9.1 20.9	623 1720 772 1060 3083 history1 5 4 2 <u>history1</u> 0.1 9.6 20.2	588 1688 757 999 2814 history2 6 5 2 2 history2 0.1 9.3 19.6



OIL ANALYSIS REPORT





VISUAL		method				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	>0.1	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	15.1	14.6	14.9	15.0
GRAPHS						

Ferrous Alloys

