

# **OIL ANALYSIS REPORT**

## 10742C AUTOCAR ACX Component

**Natural Gas Engine** 

PETRO CANADA DURON GEO LD 15W40 (28 QTS)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

#### Wear

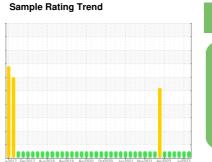
All component wear rates are normal.

#### 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.





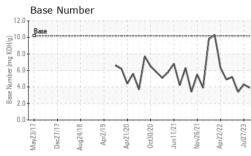
NORMAL

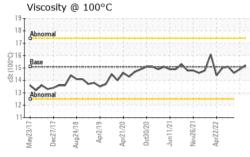
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0103211	GFL0089268	GFL0056579
Sample Date		Client Info		20 Dec 2023	27 Jul 2023	20 Feb 2023
Machine Age	hrs	Client Info		8131	6963	5672
Oil Age	hrs	Client Info		0	0	394
Oil Changed		Client Info		Changed	Not Changd	Changed
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	21	18	28
Chromium	ppm	ASTM D5185m	>4	3	2	4
Nickel	ppm	ASTM D5185m	>2	<1	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>9	2	4	2
Lead	ppm	ASTM D5185m	>30	5	4	21
Copper	ppm	ASTM D5185m	>35	<1	0	<1
Tin	ppm	ASTM D5185m	>4	1	<1	1
Vanadium	ppm	ASTM D5185m		<1	0	0
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 50	current 11	history1 11	history2 8
	ppm ppm					
Boron		ASTM D5185m	50	11	11	8
Boron Barium	ppm	ASTM D5185m ASTM D5185m	50 5 50	11 0	11 0	8 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	11 0 64	11 0 62	8 0 61
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	11 0 64 <1	11 0 62 <1	8 0 61 1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	11 0 64 <1 710 1858 951	11 0 62 <1 678	8 0 61 1 658
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510	11 0 64 <1 710 1858	11 0 62 <1 678 1896	8 0 61 1 658 1877
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780	11 0 64 <1 710 1858 951	11 0 62 <1 678 1896 861	8 0 61 1 658 1877 842
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870	11 0 64 <1 710 1858 951 1208	11 0 62 <1 678 1896 861 1108	8 0 61 1 658 1877 842 1111
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040	11 0 64 <1 710 1858 951 1208 2891	11 0 62 <1 678 1896 861 1108 3137	8 0 61 1 658 1877 842 1111 2730
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040	11 0 64 <1 710 1858 951 1208 2891 current	11 0 62 <1 678 1896 861 1108 3137 history1	8 0 61 1 658 1877 842 1111 2730 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	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 <b>method</b>	50 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	11 0 64 <1 710 1858 951 1208 2891 current 5	11 0 62 <1 678 1896 861 1108 3137 history1 7	8 0 61 1 658 1877 842 1111 2730 history2 8
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	11 0 64 <1 710 1858 951 1208 2891 Current 5 8	11 0 62 <1 678 1896 861 1108 3137 history1 7 9	8 0 61 1 658 1877 842 1111 2730 history2 8 15
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 <b>limit/base</b> >+100	11 0 64 <1 710 1858 951 1208 2891 current 5 8 8 <1	11 0 62 <1 678 1896 861 1108 3137 history1 7 9 0	8 0 61 1 658 1877 842 1111 2730 history2 8 15 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 2040 >+100 >20 }	11 0 64 <1 710 1858 951 1208 2891 current 5 8 <1 current	11 0 62 <1 678 1896 861 1108 3137 history1 7 9 0 0	8 0 61 1 658 1877 842 1111 2730 history2 8 15 <1 +istory2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 2040 >+100 >20 }	11 0 64 <1 710 1858 951 1208 2891 current 5 8 <1 current 0	11 0 62 <1 678 1896 861 1108 3137 history1 7 9 0 history1 0.1	8 0 61 1 658 1877 842 1111 2730 history2 8 15 <1 5 <1 history2 0.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 <i>limit/base</i> >+100 20 <i>limit/base</i>	11 0 64 <1 710 1858 951 1208 2891 current 5 8 <1 current 0 12.6	111 0 62 <1 678 1896 861 1108 3137 history1 7 9 0 history1 0.1 11.7	8 0 61 1 658 1877 842 1111 2730 history2 8 15 <1 kistory2 0.1 14.2
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	ASTM D5185m ASTM D5185m	50 50 560 1510 780 870 2040 <b>Iinit/base</b> >+100 20 <b>Iinit/base</b> >20	11 0 64 <1 710 1858 951 1208 2891 <u>current</u> 5 8 <1 <u>current</u> 0 12.6 26.7	111 0 62 <1 678 1896 861 1108 3137 history1 7 9 0 history1 0.1 11.7 25.0	8 0 61 1 658 1877 842 1111 2730 <b>history2</b> 8 15 <1 <b>kistory2</b> 0.1 14.2 29.6



# **OIL ANALYSIS REPORT**

VISUAL





	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	LIGHT	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
WZ	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	LIGHT	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Nov26/21 Apr22/22 Jul27/23	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Novi Aprá Juľž	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
Λ	Visc @ 100°C	cSt		15.1	15.2	14.9	14.6
$\sim v \sim$	GRAPHS						
	Ferrous Alloys						
2	80 iron	100110	12010011				
Nov26/21 Apr22/22	70 - mickel						
Ap	60 +						
E							
2	50 - 40 -						
	30-			٨			
	20	~~	MAN	M			
				and the second se			
	May23/17 Dec27/17 Aug24/18 Apr2/19	Apr21/20 - 0ct30/20 -	Jun 11/21 - Nov26/21 - Apr22/22 -	Jul27/23			
	May23/1 Dec27/1 Aug24/18 Apr2/19	Apr2 Oct3	Jun1 Nov2 Apr2	Jul2			
	Non-ferrous Meta	s					
	350 copper	1992					
	300 - Internet lead						
	250 -						
mqq	200						
d	150	4004000					
	100						
	50						
	0			<u></u>			
	lay23/17 )ec27/17 ug24/18 Apr2/19	1/20	1/21 6/21	7/23			
	May23/17 Dec27/17 Aug24/18 Apr2/19	Apr21/20 0ct30/20	Jun11/21 Nov26/21 Apr22/22	Jul27/23			
	Viscosity @ 100°C	2			Daas Number		
	<sup>19</sup>			12	Base Number		
	18- Abnormal			10	Base		
	17-				.0		Λ
ç	516-4000000000000000000000000000000000000		٨	i i i i i i i i i i i i i i i i i i i	.0	A	
000	516 Base 314	~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		.0	$\lambda \Lambda$	A   \
St	<sup>3</sup> 14	~		Base Number (mg KOH/g) 6 9 8	.0-	W Y	WW h
	13 Abnormal			Base			· · ·
	12			2	.0		
	11			0			
	May23/17 Dec27/17 Aug24/18 Apr2/19	Apr21/20 0ct30/20	Jun 1 1/2 1 Nov26/2 1 Apr22/22	Jul27/23	May23/17 Dec27/17 Aug24/18 Aor2/19	Apr21/20 0ct30/20 Jun11/21	Nov26/21 Apr22/22 Jul27/23
	Mar Der As	Ap Oct	Jui No: Apr	ηr	Ma: Aug	Api Jur	Apr
Laboratory	: WearCheck USA - S				3 GFL Envi		I - Raleigh(CNG)
Sample No.		Recieved		Dec 2023		3741	Conquest Drive
_ab Number		Diagnose		Dec 2023			Garner, NC
Jnique Number	: 10802408 : FLEET	Diagnost	ician : We	s Davis		Contact	US 27529 Craig Johnson
Test Package	: FLEE I ontact Customer Serv	ice at 1.9	00-237-1360	2			Craig Johnson on@gflenv.com
	oniaci Cusioniei Serv						(919)662-7100

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)

Certificate L2367

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