

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 733026

Component Natural Gas Engine

PETRO CANADA DURON GEO LD 15W40 (--- GAL)

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

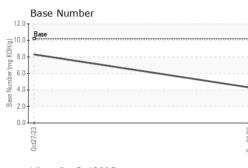
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

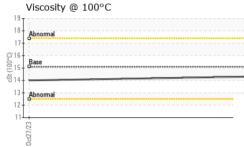
			0ct2023	Dec2023		
SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0100549	GFL0093321	
Sample Date		Client Info		23 Dec 2023	27 Oct 2023	
Machine Age	hrs	Client Info		580	201	
Oil Age	hrs	Client Info		201	201	
Oil Changed		Client Info		Changed	Not Changd	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.1	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>50	47	32	
Chromium	ppm	ASTM D5185m	>4	<1	<1	
Nickel	ppm	ASTM D5185m	>2	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	0	<1	
Aluminum	ppm	ASTM D5185m	>9	10	4	
Lead	ppm	ASTM D5185m	>30	2	<1	
Copper	ppm	ASTM D5185m	>35	18	15	
Tin	ppm	ASTM D5185m	>4	1	<1	
Vanadium	ppm	ASTM D5185m		0	0	
Cadmium	ppm	ASTM D5185m		0	<1	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	Method ASTM D5185m	limit/base	current 9	history1 30	history2
	ppm ppm					history2
Boron		ASTM D5185m	50	9	30	
Boron Barium	ppm	ASTM D5185m ASTM D5185m	50 5	9 2	30 7	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50	9 2 52	30 7 44	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0	9 2 52 15	30 7 44 14	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560	9 2 52 15 734	30 7 44 14 708 1120 655	
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	9 2 52 15 734 1267	30 7 44 14 708 1120	
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	9 2 52 15 734 1267 653	30 7 44 14 708 1120 655	
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	9 2 52 15 734 1267 653 925	30 7 44 14 708 1120 655 786	
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 50 00 560 1510 780 870 2040	9 2 52 15 734 1267 653 925 2296	30 7 44 14 708 1120 655 786 2202	
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 50 00 560 1510 780 870 2040	9 2 52 15 734 1267 653 925 2296 current	30 7 44 14 708 1120 655 786 2202 history1	 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 method	50 50 00 560 1510 780 870 2040	9 2 52 15 734 1267 653 925 2296 current 32	30 7 44 14 708 1120 655 786 2202 history1 41	 history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 5 50 0 560 1510 780 870 2040 limit/base >+100	9 2 52 15 734 1267 653 925 2296 Current 32 5	30 7 44 14 708 1120 655 786 2202 history1 41 3	 history2
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 00 560 1510 780 870 2040 limit/base >+100	9 2 52 15 734 1267 653 925 2296 2296 current 32 5 29	30 7 44 14 708 1120 655 786 2202 history1 41 3 18	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 Imit/base >+100 >20 Imit/base	9 2 52 15 734 1267 653 925 2296 current 32 5 29 current	30 7 44 14 708 1120 655 786 2202 history1 41 3 18 18 history1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	50 50 0 560 1510 780 870 2040 Imit/base >+100 >20 Imit/base	9 2 52 15 734 1267 653 925 2296 <u>current</u> 32 5 29 <u>current</u> 0	30 7 44 14 708 1120 655 786 2202 history1 41 3 18 18 history1 0	 history2 history2 history2
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 00 560 1510 780 870 2040 imit/base >+100 20 imit/base	9 2 52 15 734 1267 653 925 2296 current 32 5 29 current 0 0 11.7	30 7 44 14 708 1120 655 786 2202 history1 41 3 18 history1 0 8.1	 history2 history2 history2
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 Imit/base >20 Imit/base >20 Imit/base	9 2 52 15 734 1267 653 925 2296 <u>current</u> 32 5 29 <u>current</u> 0 11.7 22.5	30 7 44 14 708 1120 655 786 2202 history1 41 3 18 history1 0 8.1 23.5	 history2 history2 history2
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 D7844 *ASTM D7624	50 50 560 1510 780 870 2040 >timit/base >+100 220 imit/base >20 >30	9 2 52 15 734 1267 653 925 2296 current 32 5 29 current 0 11.7 22.5	30 7 44 14 708 1120 655 786 2202 history1 41 3 18 history1 0 8.1 23.5 history1	 history2 history2 history2 history2



OIL ANALYSIS REPORT

VISUAL





	VISUAL		method	limit/base	current	history1	history2
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
	Precipitate	scalar	*Visual	NONE	NONE	NONE	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
2	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Dec23/23	Appearance	scalar	*Visual	NORML	NORML	NORML	
De	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	
	FLUID PROPE	RTIES	method	limit/base	current	history1	history2
	Visc @ 100°C	cSt	ASTM D445	15.1	14.3	14.0	
	GRAPHS						
	Ferrous Alloys						
	50 T						
	iron chromium						
	40 - nickel						
	30						
	E d						
	20						
	10-						
	0 L p			23			
	0ct27/23			Dec23/23			
	00			Dei			
	Non-ferrous Meta	ls					
	¹⁸ T						
	16 - copper						
	14						
	12						
	E ¹⁰						
	d 8-						
	6 -						
	4						
	2						
	0						
				3/23			
	0ct27/23			Dec23/23			
		-					
	Viscosity @ 100°	-			Base Numbe	r	
				12.0	°T:		
	18 - Abnormal			10.0	Base		
	17-			(B/H			
ć	p ¹⁶				0		
0	Base			<u>ل</u> بة 6.0	0		
č	Base 15 3 14			.8.1 Base Number 1.4			
				N 4.0	0+		
	13 Abnormal			Bas	0		
	12			2.0			
	11			0.0			
	7/23			3/23	7/23		
	0ct27/23			Dec23/23	0ct27/23		
	_				_		
oratory	· WearCharly LICA	501 Madie	on Ava Ca	IN NO 0751	3 65 5-	vironmental OFF	aet Mount Llaui
	: WearCheck USA - : GFL0100549	Recieved		Dec 2023		vironmental - 865 - E	
ple No.						7213 East Mount	
Number		Diagnos		Jan 2024			Houston,
le Number		Diagnost	ician : We	s Davis	-		US 770
Package	: FLEET			-	Co	ontact: TECHNICI	
ole report, c	contact Customer Serv	vice at 1-8	00-237-1369	9.		wcgflder	no@gmail.co

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

Submitted By: TECHNICIAN ACCOUNT

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