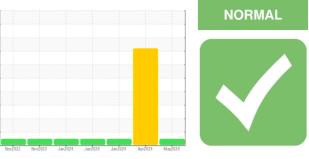


OIL ANALYSIS REPORT

SAMPLE INFORMATION method

Sample Rating Trend



Machine Id

427112-430

Component Diesel Engine Fluid PETRO CANADA DURON SHP 15W40 (--- LTR)

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.

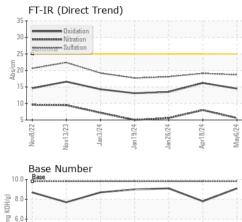
Fluid Condition

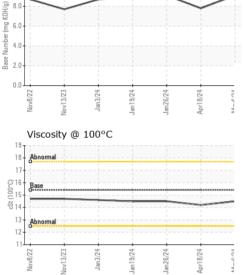
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

	VIATION	method	limit/base	current	nistory I	nistory2
Sample Number		Client Info		GFL0108512	GFL0108461	GFL0108533
Sample Date		Client Info		06 May 2024	18 Apr 2024	26 Jan 2024
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	SEVERE	NORMAL
						-
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>80	22	1 22	38
Chromium	ppm	ASTM D5185m	>5	2	<u> </u>	2
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>30	5	22	7
Lead	ppm	ASTM D5185m	>30	0	0	0
Copper	ppm	ASTM D5185m	>150	3	19	3
Tin	ppm	ASTM D5185m	>5	۵ <1	1	0
Vanadium	ppm	ASTM D5185m	20	0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
Oddinidini	ppin			Ū	0	0
		ام م ما الم معر			la la tama d	histow.0
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	5	4	9
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0	5 1	4	9 25
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	5 1 58	4 0 60	9 25 58
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	5 1 58 <1	4 0 60 2	9 25 58 0
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	5 1 58 <1 949	4 0 60 2 1017	9 25 58 0 861
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	5 1 58 <1 949 1022	4 0 60 2 1017 1121	9 25 58 0 861 1021
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150	5 1 58 <1 949 1022 1060	4 0 60 2 1017 1121 1036	9 25 58 0 861 1021 1021
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070 1150 1270	5 1 58 <1 949 1022 1060 1231	4 0 60 2 1017 1121 1036 1264	9 25 58 0 861 1021 1021 1125
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	0 0 60 0 1010 1070 1150	5 1 58 <1 949 1022 1060	4 0 60 2 1017 1121 1036	9 25 58 0 861 1021 1021
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	0 0 60 0 1010 1070 1150 1270	5 1 58 <1 949 1022 1060 1231	4 0 60 2 1017 1121 1036 1264	9 25 58 0 861 1021 1021 1125
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	0 0 60 1010 1070 1150 1270 2060	5 1 58 <1 949 1022 1060 1231 3611	4 0 60 2 1017 1121 1036 1264 3183	9 25 58 0 861 1021 1021 1125 3181
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	0 0 60 1010 1070 1150 1270 2060	5 1 58 <1 949 1022 1060 1231 3611 current	4 0 60 2 1017 1121 1036 1264 3183 history1	9 25 58 0 861 1021 1021 1125 3181 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 ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base	5 1 58 <1 949 1022 1060 1231 3611 current 11	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49	9 25 58 0 861 1021 1021 1125 3181 history2 13
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 method ASTM D5185m	0 0 60 1010 1070 1150 1270 2060 kimit/base	5 1 58 <1 949 1022 1060 1231 3611 current 11 2	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5	9 25 58 0 861 1021 1021 1125 3181 history2 13 0
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	0 0 0 1010 1070 1150 1270 2060 limit/base >20	5 1 58 <1 949 1022 1060 1231 3611 current 11 2 1 1 current	4 0 60 2 1017 1121 1036 1264 3183 history1 49 5 5 5	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5
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	0 0 0 1010 1070 1150 1270 2060 2060 2060 220 20 20 20 3	5 1 58 <1 949 1022 1060 1231 3611 <u>current</u> 11 2 1 <u>current</u> 0.1	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5 5 5 5 history1 0.2	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5 history2 0.2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 1010 1070 1150 1270 2060 imit/base >20 200 imit/base >20	5 1 58 <1 949 1022 1060 1231 3611 current 11 2 1 current 0.1 5.6	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5 5 5 bistory1 0.2 8.0	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5 history2 0.2 5.6
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	0 0 0 1010 1070 1150 1270 2060 imit/base >20 imit/base >3 >20 >3	5 1 58 <1 949 1022 1060 1231 3611 <u>current</u> 11 2 1 <u>current</u> 0.1 5.6 18.7	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5 5 5 5 history1 0.2 8.0 19.1	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5 history2 0.2 5.6 18.1
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 TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624	0 0 0 1010 1070 1150 2060 2060 220 220 220 imit/base >3 >20 >30 30	5 1 58 <1 949 1022 1060 1231 3611 Current 11 2 1 Current 0.1 5.6 18.7 Current	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5 5 5 history1 0.2 8.0 19.1	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5 history2 0.2 5.6 18.1 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	0 0 0 1010 1070 1150 2060 2060 200 220 220 220 220 33 220 330 220 330 225	5 1 58 <1 949 1022 1060 1231 3611 <u>current</u> 11 2 1 <u>current</u> 0.1 5.6 18.7	4 0 60 2 1017 1121 1036 1264 3183 history1 ▲ 49 5 5 5 5 history1 0.2 8.0 19.1	9 25 58 0 861 1021 1021 1125 3181 history2 13 0 5 history2 0.2 5.6 18.1



OIL ANALYSIS REPORT





	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	
CANADAR D. & B.	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE	
Apr18/24 May6/24	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML	
Apr	Odor	scalar	*Visual	NORML	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG	
	Free Water	scalar	*Visual		NEG	NEG	NEG	
\checkmark	FLUID PROPE	RTIES	method	limit/base	current	history1	history2	
	Visc @ 100°C	cSt	ASTM D445	15.4	14.5	14.2	14.5	
	GRAPHS							
	Ferrous Alloys							
Apr1 8/24 м-слл	120 - Chromium		Λ					
Ap	100-		/					
	80- E co							
	60-		/					
	40-		_					
	20-							
	55 53 55	24 -	24	54				
	Nov8/22 Nov13/23 Jan3/24	Jan 19/24	Jan 26/24 ·	May6/24				
	≥ Non-ferrous Meta		n A	2				
124	20 T	IS						
Apr18/24 мс.л.	copper							
	15 - 15 - 15 - 15 - 15 - 15 - 15 - 15 -		/\					
	e		/ /					
	<u>a</u> 10-		/					
			/					
	5							
			Contraction of the owners of the owners					
	Nov8/22 Nov13/23 Jan3/24	Jan 19/24 -	Jan 26/24 . Apr 18/24 .	May6/24				
	Nov1 Jar	Jan1	Jan2 Apr1	May				
	Viscosity @ 100°C	2			Base Numbe	r		
	19 18 Abarrat			10.0	Base	-		
	18 Abnormal		1	- 8.0			\searrow	
	i i i			COH/g				
	Base		****	Ē 6.0	D			
	(2) 16 (2) 15 (3) 15 (3) 14			6.0 Base Number (mg KOH/d)	0			
	13 Abnormal			ase N				
	12			° 2.0	D.			
	11							
	Nov8/22 Nov13/23 Jan3/24	Jan 19/24	Jan 26/24 Apr 18/24	May6/24	Nav8/22 Nav13/23	Jan 3/24 Jan 19/24	Apr18/24 . May6/24 .	
	Nov Na	Jar	Jar Apr	M	Nov	Jan Jan	Ap	
Laboratory	: WearCheck USA - 50	1 Madieo		NC 27512	GEL En	vironmental - 904 - C	hinnewa Falle HC	
Sample No.	: GFL0108512	Recei		May 2024			63 30th Avenue	
Lab Number	: 06178378	Teste	d :14	May 2024			pewa Falls, WI	
Unique Number		11029704 Diagnosed : 14 May 2024 - Wes Davis US 547						
Test Package	: FLEET , contact Customer Serv	ice at 1-9	00-237-1360	2		Cont	act: Andy Kane	
sample report,	oomaaa Ousionier Serv	100 al 1-0	00 201-1008	<i>.</i>				

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) T: (715)202-3420 F:

Report Id: GFL904 [WUSCAR] 06178378 (Generated: 05/14/2024 18:35:40) Rev: 1

Certificate L2367

Submitted By: See also GFL904,A,B,C, 927, 938 - Andy Kane