

OIL ANALYSIS REPORT

MONTGOMERY Machine Id KENWORTH 426116

Component Diesel Engine

PETRO CANADA DURON SHP 15W40 (--- LTR)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

Fluid

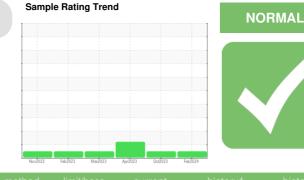
All component wear rates are normal.

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.

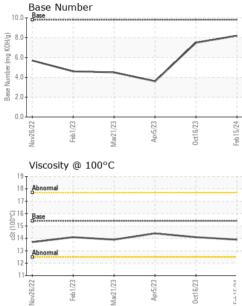


SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0088635	GFL0092420	GFL0078448
Sample Date		Client Info		15 Feb 2024	16 Oct 2023	05 Apr 2023
Machine Age	hrs	Client Info		16110	15993	15753
Oil Age	hrs	Client Info		117	240	273
Oil Changed		Client Info		Not Changd	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL
CONTAMINAT		method	limit/base	current	history1	history2
Fuel		WC Method	>5		<1.0	<1.0
Water				<1.0		
		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	>100	10	24	74
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	3	5
Lead	ppm	ASTM D5185m	>40	2	6	27
Copper	ppm	ASTM D5185m	>330	<1	<1	3
Tin	ppm	ASTM D5185m	>15	<1	<1	1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm		limit/base	current 3	history1 7	history2 28
	ppm ppm	ASTM D5185m				
Boron		ASTM D5185m	0	3	7	28
Boron Barium	ppm	ASTM D5185m ASTM D5185m	0 0 60	3 3	7 0	28 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60	3 3 59	7 0 72	28 0 102
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0	3 3 59 0	7 0 72 0	28 0 102 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010	3 3 59 0 823	7 0 72 0 931	28 0 102 1 682
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 60 0 1010 1070	3 3 59 0 823 982	7 0 72 0 931 1188	28 0 102 1 682 1435
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	0 0 60 0 1010 1070 1150	3 3 59 0 823 982 946	7 0 72 0 931 1188 971	28 0 102 1 682 1435 848
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	3 3 59 0 823 982 946 1074	7 0 72 0 931 1188 971 1228	28 0 102 1 682 1435 848 1023
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 0 1010 1070 1150 1270 2060	3 3 59 0 823 982 946 1074 3068	7 0 72 0 931 1188 971 1228 3210	28 0 102 1 682 1435 848 1023 2362
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 0 1010 1070 1150 1270 2060	3 3 59 0 823 982 946 1074 3068 current	7 0 72 0 931 1188 971 1228 3210 history1	28 0 102 1 682 1435 848 1023 2362 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 0 1010 1070 1150 1270 2060	3 3 59 0 823 982 946 1074 3068 current 4	7 0 72 0 931 1188 971 1228 3210 history1 7	28 0 102 1 682 1435 848 1023 2362 history2 15
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	0 0 60 1010 1070 1150 1270 2060 kimit/base >25	3 3 59 0 823 982 946 1074 3068 <u>current</u> 4 0	7 0 72 0 931 1188 971 1228 3210 history1 7 0	28 0 102 1 682 1435 848 1023 2362 history2 15 <1
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 >25	3 3 59 0 823 982 946 1074 3068 <u>current</u> 4 0 3 3	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 15 <1 14
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 225 >25	3 3 59 0 823 982 946 1074 3068 <u>current</u> 4 0 3 <u>current</u> 0.2	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6 history1 0.4	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 14 history2 1
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	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20	3 3 59 0 823 982 946 1074 3068 <u>current</u> 4 0 3 3	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6 Kistory1	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 14 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	0 0 0 1010 1070 1150 1270 2060 limit/base >25 >20 limit/base >3 >20	3 3 59 0 823 982 946 1074 3068 <i>current</i> 4 0 3 <i>current</i> 0.2 7.0	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6 history1 0.4 9.1	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 14 history2 1 14 13.6
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 TS ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7844	0 0 0 1010 1070 1150 1270 2060 2060 225 20 220 220 20 3 20 20 3 3 20 20 3 3 20 20 20 20 20 20 20 20 20 20 20 20 20	3 3 59 0 823 982 946 1074 3068 current 4 0 3 current 0.2 7.0 18.5 current	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6 history1 0.4 9.1 20.1 history1	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 15 <1 14 history2 1 13.6 29.1 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 1270 2060 imit/base >25 imit/base >3 >20	3 3 59 0 823 982 946 1074 3068 <u>current</u> 4 0 3 <u>current</u> 0.2 7.0 18.5	7 0 72 0 931 1188 971 1228 3210 history1 7 0 6 6 history1 0.4 9.1 20.1	28 0 102 1 682 1435 848 1023 2362 history2 15 <1 14 history2 1 13.6 29.1



OIL ANALYSIS REPORT

VISUAL



NAB	Laboratory Sample No. Lab Number	: WearCheck USA - 501 Madison Ave., Cary, NC 27513 GFL Environmental - 955 - Mo : GFL0088635 Received : 20 Feb 2024 1121 Wi : 06094027 Tested : 21 Feb 2024 Montgo : 10886880 Diagnosed : 21 Feb 2024 - Wes Davis U : FLEET Contact: LISA contact Customer Service at 1-800-237-1369. are outside of the ISO 17025 scope of accreditation.						
		13 - Abnormal 12 -	Mar21/23	Oct16/23 -	-0.9 8385 4.0- 900 8385 8385 8385 8385 8385 8385 8385 83	Nov26/22	Mar21/23	0ct16/23
		19 18 Abnomal 17 G 16 Base 15 15 16 15 15 16			10.0 8.0- (0)HOX (0)HOX (0) Way see 10.0 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 9 2.0-	Base Number		\bigwedge
		Viscosity @ 100°	O Mar21/23	Oct16/23	Feb 15/24	Daga Nurraha		
		ي الم الم الم الم الم الم						
		Non-ferrous Meta	als					
		Mov26/2/2 0 0	Mar21/23	Oct16/23	Feb15/24			
Aş	L. D. C.	60						
Apr5/23 -	0ct16/23 +	Ferrous Alloys						
		Visc @ 100°C GRAPHS	cSt	ASTM D445	15.4	13.9	14.1	14.4
		Free Water FLUID PROPE	scalar ERTIES	*Visual method	limit/base	NEG current	NEG history1	NEG history2
		Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
Apr5/23	0ct16/23 Feb15/24	Appearance Odor	scalar scalar	*Visual *Visual	NORML NORML	NORML NORML	NORML NORML	NORML NORML
Apr5/23		Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Silt Debris	scalar scalar	*Visual *Visual	NONE	NONE NONE	NONE NONE	NONE NONE	
		Scalai	visual		NONE			
_ /		Yellow Metal Precipitate	scalar scalar	*Visual *Visual	NONE NONE	NONE	NONE NONE	NONE NONE



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