

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 338665

Component Diesel Engine Fluid PETRO CANADA DURON SHP 10W30 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

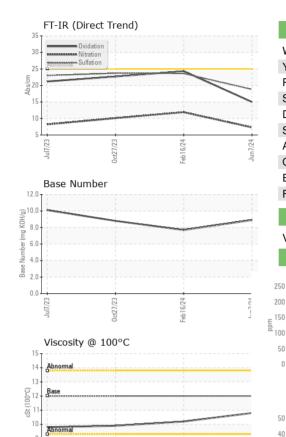
Fluid Condition

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

SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0128904	PCA0118906	PCA0110460
Sample Date		Client Info		07 Jun 2024	16 Feb 2024	27 Oct 2023
Machine Age	mls	Client Info		30854	0	15437
Oil Age	mls	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	N/A	Not Changd
Sample Status				NORMAL	NORMAL	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	>100	26	73	63
Chromium	ppm		>20	<1	2	1
Nickel	ppm	ASTM D5185m	>4	0	<1	1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m		11	20	14
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m		21	50	49
Tin	ppm	ASTM D5185m		2	6	5
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
	ppm					
Boron	ppm pom	ASTM D5185m	limit/base 2 0	current 9 0	history1 26 0	35
Boron Barium	ppm	ASTM D5185m ASTM D5185m	2	9	26	
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	2 0	9 0	26 0	35 <1
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m	2 0 50	9 0 62 2	26 0 44	35 <1 46
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0	9 0 62	26 0 44 12	35 <1 46 12
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950	9 0 62 2 867	26 0 44 12 503	35 <1 46 12 531
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	2 0 50 0 950 1050	9 0 62 2 867 1191	26 0 44 12 503 1703	35 <1 46 12 531 1759
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	2 0 50 9 950 1050 995	9 0 62 2 867 1191 1002	26 0 44 12 503 1703 686	35 <1 46 12 531 1759 788
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	2 0 50 0 950 1050 995 1180	9 0 62 2 867 1191 1002 1188	26 0 44 12 503 1703 686 849	35 <1 46 12 531 1759 788 941
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	2 0 50 950 1050 995 1180 2600	9 0 62 2 867 1191 1002 1188 3362	26 0 44 12 503 1703 686 849 2067	35 <1 46 12 531 1759 788 941 2363
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	2 0 50 950 1050 995 1180 2600	9 0 62 2 867 1191 1002 1188 3362 current	26 0 44 12 503 1703 686 849 2067 history1	35 <1 46 12 531 1759 788 941 2363 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	2 0 50 950 1050 995 1180 2600 limit/base >25	9 0 62 2 867 1191 1002 1188 3362 current 12	26 0 44 12 503 1703 686 849 2067 history1 8	35 <1 46 12 531 1759 788 941 2363 history2 36
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 ASTM D5185m	2 0 50 950 1050 995 1180 2600 limit/base >25	9 0 62 2 867 1191 1002 1188 3362 <u>current</u> 12 4	26 0 44 12 503 1703 686 849 2067 history1 8 8 8	35 <1 46 12 531 1759 788 941 2363 history2 36 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	2 0 50 0 950 1050 995 1180 2600 imit/base >25 >20	9 0 62 2 867 1191 1002 1188 3362 <u>current</u> 12 4 20	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 8 29	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26
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	2 0 50 0 950 1050 995 1180 2600 limit/base >25 -20 limit/base	9 0 62 2 867 1191 1002 1188 3362 current 12 4 20 current	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 29 history1	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26 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	2 0 50 0 950 1050 995 1180 2600 limit/base >25 >20 limit/base	9 0 62 2 867 1191 1002 1188 3362 current 12 4 20 current 0.3	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 29 history1 0.6	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26 history2 0.5
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	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20	9 0 62 2 867 1191 1002 1188 3362 <u>current</u> 12 4 20 <u>current</u> 0.3 7.3	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 29 history1 0.6 11.9	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26 history2 0.5 10.1
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 ppm ppm	ASTM D5185m ASTM D5185m	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	9 0 62 2 867 1191 1002 1188 3362 <u>current</u> 12 4 20 <u>current</u> 0.3 7.3 18.8	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 29 history1 0.6 11.9 23.6	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26 history2 0.5 10.1 23.7
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 D7844	2 0 50 0 950 1050 995 1180 2600 <i>imit/base</i> >25 >20 <i>imit/base</i> >3 >20 >30	9 0 62 2 867 1191 1002 1188 3362 <i>current</i> 12 4 20 <i>current</i> 0.3 7.3 18.8	26 0 44 12 503 1703 686 849 2067 history1 8 8 8 29 history1 0.6 11.9 23.6 history1	35 <1 46 12 531 1759 788 941 2363 history2 36 1 26 history2 0.5 10.1 23.7

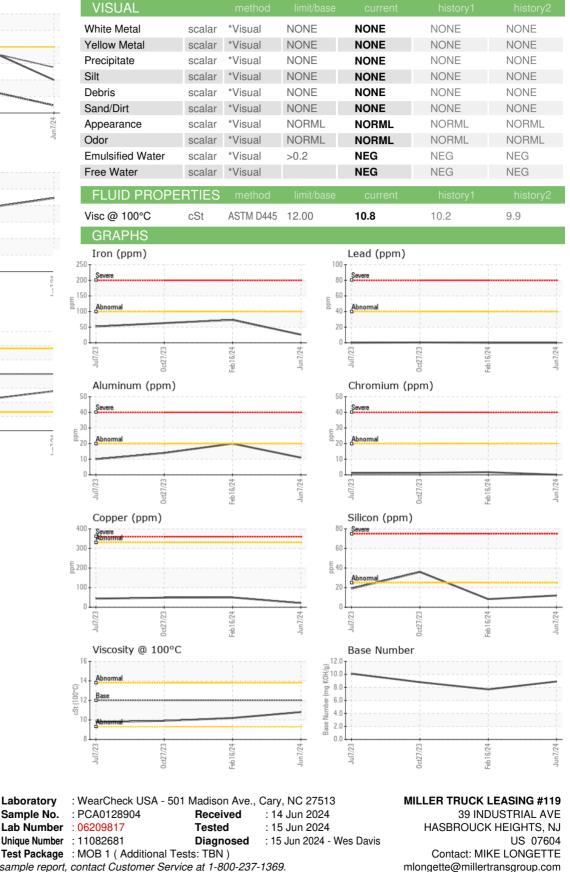


OIL ANALYSIS REPORT



Dct27/23

eb16/24



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.

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Laboratory

Sample No.

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (201)528-7053

Report Id: MILRUT [WUSCAR] 06209817 (Generated: 06/15/2024 15:32:16) Rev: 1

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