

OIL ANALYSIS REPORT

Sample Rating Trend



345 (S/N CJB002510)

Diesel Engine

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

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

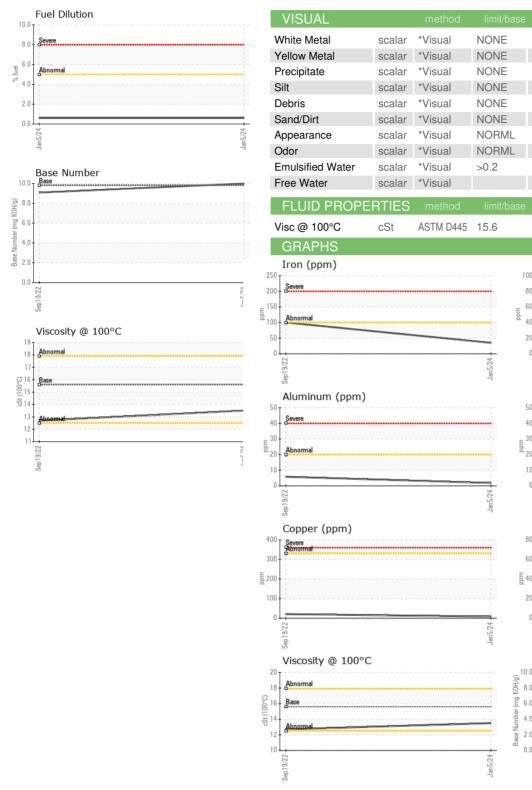
Fluid Condition

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

SAMPLE INFOR		method	limit/base	ourropt	history	history2
	VIATION		- init base	current	history1	
Sample Number		Client Info		PCA0044192	PCA0044238	
Sample Date		Client Info		05 Jan 2024	19 Sep 2022	
Machine Age	hrs	Client Info		0	824	
Oil Age	hrs	Client Info		0	554 Okana ak	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method		NEG	NEG	
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	35	100	
Chromium	ppm	ASTM D5185m	>20	<1	2	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m		<1	<1	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	2	6	
Lead	ppm	ASTM D5185m	>40	<1	2	
Copper	ppm	ASTM D5185m	>330	8	21	
Tin	ppm	ASTM D5185m	>15	<1	2	
Vanadium	ppm	ASTM D5185m		<1	<1	
Cadmium	ppm	ASTM D5185m		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Paran	0000	ASTM D5185m		9	15	
Boron	ppm	no na boroom		5	10	
Boron Barium	ppm	ASTM D5185m		0	0	
Barium	ppm	ASTM D5185m		0	0	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m		0 53	0 49	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 53 <1	0 49 3	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 <1 748	0 49 3 696	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 53 <1 748 1349	0 49 3 696 1479	
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 53 <1 748 1349 914	0 49 3 696 1479 960	
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	limit/base	0 53 <1 748 1349 914 1196	0 49 3 696 1479 960 1233	
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 53 <1 748 1349 914 1196 3051	0 49 3 696 1479 960 1233 3579	
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 53 <1 748 1349 914 1196 3051 current	0 49 3 696 1479 960 1233 3579 history1	
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		0 53 <1 748 1349 914 1196 3051 current 10	0 49 3 696 1479 960 1233 3579 history1 15	 history2
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	>25	0 53 <1 748 1349 914 1196 3051 current 10 0	0 49 3 696 1479 960 1233 3579 history1 15 12	 history2
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 ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	>25 >20	0 53 <1 748 1349 914 1196 3051 current 10 0 3	0 49 3 696 1479 960 1233 3579 history1 15 12 2	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm TS	ASTM D5185m ASTM D5185m	>25 >20 >5	0 53 <1 748 1349 914 1196 3051 <u>current</u> 10 0 3 3 0.6	0 49 3 696 1479 960 1233 3579 history1 15 12 2 2 <1.0	 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 >5 limit/base	0 53 <1 748 1349 914 1196 3051 current 10 0 3 0.6 current	0 49 3 696 1479 960 1233 3579 history1 15 12 2 2 <1.0 history1	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm %	ASTM D5185m ASTM D5185m	>25 >20 >5 limit/base >3	0 53 <1 748 1349 914 1196 3051 <u>current</u> 10 0 3 0.6 <u>current</u> 0.2	0 49 3 696 1479 960 1233 3579 history1 15 12 2 2 <1.0 history1 0.2	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5824 ASTM D3524	>25 >20 >5 limit/base >3 >20	0 53 <1 748 1349 914 1196 3051 <u>current</u> 10 0 3 0.6 <u>current</u> 0.2 7.5	0 49 3 696 1479 960 1233 3579 history1 15 12 2 2 <1.0 history1 0.2 9.3	 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	>25 >20 >5 limit/base >3 >20 >30	0 53 <1 748 1349 914 1196 3051 <u>current</u> 10 0 3 0.6 <u>current</u> 0.2 7.5 20.0	0 49 3 696 1479 960 1233 3579 history1 15 12 2 <1.0 history1 0.2 9.3 22.3	history2 history2 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 ASTM D3524 ASTM D78444 *ASTM D7624 *ASTM D7624	>25 >20 >5 limit/base >3 >20 >30	0 53 <1 748 1349 914 1196 3051 <i>current</i> 10 0 3 0.6 <i>current</i> 0.2 7.5 20.0 <i>current</i>	0 49 3 696 1479 960 1233 3579 history1 15 12 2 <1.0 kistory1 0.2 9.3 22.3 history1	history2 history2 history2



OIL ANALYSIS REPORT



60 eo Chromium (ppm) ep] Silicon (ppm) Base Number 10.0 Sep 1 **GARY INGRAM GRADING & PAVING** : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 30 Jan 2024 1767 GRIFFIN SHOULS RD : 02 Feb 2024 DADEVILLE, AL Diagnostician : Jonathan Hester US 36853 Contact: RON INGRAM

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

13.5

Lead (ppm)

NONE

NONE

NONE

NONE

NONE

NONE

NORML

NORML

NEG

NEG

12.7



Test Package : MOB 2 (Additional Tests: FUELDILUTION, PercentFuel) Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. ron.ingram@ingrampaving.com * - 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)

Recieved

Diagnosed

: PCA0044192

: 06074146

: 10856237

Laboratory

Sample No.

Lab Number

Unique Number

Contact/Location: RON INGRAM - GARDAD

F:

T: (256)825-6878