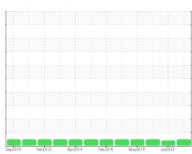


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



2007 STERLING 2257

Component

Diesel Engine

PETRO CANADA DURON HP 15W40 (35 QTS)

DIAGNOSIS

Recommendation

No corrective action is recommended at this time. 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.

ΓS)		Sep 2010	Feb2012 Apr2014	Feb 2016 May 2019 Jr	12022	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		RW0004846	RW0003775	RW0001159
Sample Date		Client Info		22 Sep 2023	13 Jul 2022	11 Jun 2020
Machine Age	hrs	Client Info		7663	7332	6552
Oil Age	hrs	Client Info		330	300	259
Oil Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	ATTENTION	NORMAL
CONTAMINATION	J	method	limit/base	current	history1	history2
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	5	7	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	1	2	2
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Antimony	ppm	ASTM D5185m				0
Vanadium	ppm	ASTM D5185m		0	0	0
		ACTALDELOS				
Cadmium	ppm	ASTM D5185m		0	<1	0
Cadmium ADDITIVES	ppm	method	limit/base	current	<1 history1	0 history2
	ppm		limit/base	-		
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 26	history1 168	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	limit/base	current 26 2	history1 168 0	history2 13 0
ADDITIVES Boron Barium Molybdenum	ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 26 2 66	history1 168 0 73	history2 13 0 66
ADDITIVES Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 26 2 66 0	history1 168 0 73 <1	history2 13 0 66 <1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 26 2 66 0 826	history1 168 0 73 <1 494	history2 13 0 66 <1 885
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	current 26 2 66 0 826 1220	history1 168 0 73 <1 494 1637	history2 13 0 66 <1 885 1082
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 26 2 66 0 826 1220 1057	history1 168 0 73 <1 494 1637 1041	history2 13 0 66 <1 885 1082 970
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 26 2 66 0 826 1220 1057 1228	history1 168 0 73 <1 494 1637 1041 1247	history2 13 0 66 <1 885 1082 970 1077
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 26 2 66 0 826 1220 1057 1228 3341	history1 168 0 73 <1 494 1637 1041 1247 3906	history2 13 0 66 <1 885 1082 970 1077 2461
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 26 2 66 0 826 1220 1057 1228 3341 current	history1 168 0 73 <1 494 1637 1041 1247 3906 history1	history2 13 0 66 <1 885 1082 970 1077 2461 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base	current 26 2 66 0 826 1220 1057 1228 3341 current 3	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20 >5 limit/base	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1 0.3	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3 0.6 history1	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4 <1.0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7844	limit/base >25 >20 >5 limit/base >3	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1 0.3 current	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3 0.6 history1 0.2	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4 <1.0 history2 0.1
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	limit/base >25 >20 >5 limit/base >3 >20	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1 0.3	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3 0.6 history1	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4 <1.0 history2
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D7624	limit/base >25 >20 >5 limit/base >3 >20	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1 0.3 current 0.1 6.7	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3 0.6 history1 0.2 8.8	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4 <1.0 history2 0.1 6.9
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m ASTM D76244 *ASTM D7624	limit/base >25	current 26 2 66 0 826 1220 1057 1228 3341 current 3 0 1 0.3 current 0.1 6.7 18.0	history1 168 0 73 <1 494 1637 1041 1247 3906 history1 4 <1 3 0.6 history1 0.2 8.8 21.1	history2 13 0 66 <1 885 1082 970 1077 2461 history2 21 2 4 <1.0 history2 0.1 6.9 19.1



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number

Unique Number

: 05963690 : 10670241

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 28 Sep 2023 : RW0004846 : 02 Oct 2023 Diagnosed

Diagnostician : Wes Davis Test Package : MOB 2 (Additional Tests: FuelDilution, PercentFuel)

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) **NEWKIRK ELECTRIC** 1875 ROBERTS ST. MUSKEGON, MI US 49442 Contact: ERIC KING

ewking@newkirk-electric.com

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