

## **OIL ANALYSIS REPORT**

Sample Rating Trend



### Machine Id PETERBILT 406

#### Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- GAL)

#### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

#### 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.

			Sep2022	Mar2024		
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0115583	PCA0069315	
Sample Date		Client Info		24 Mar 2024	30 Sep 2022	
Machine Age	mls	Client Info		0	116075	
Oil Age	mls	Client Info		0	12772	
Oil Changed		Client Info		N/A	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINAT	ION	method	limit/base	current	history1	history2
Fuel		WC Method	>5	<1.0	<1.0	
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	20	25	
Chromium	ppm	ASTM D5185m	>20	1	1	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	0	0	
Aluminum	ppm	ASTM D5185m	>20	3	<1	
Lead	ppm	ASTM D5185m	>40	1	2	
Copper	ppm	ASTM D5185m	>330	6	6	
Tin	ppm	ASTM D5185m	>15	1	<1	
Vanadium	ppm	ASTM D5185m		<1	0	
Cadmium	ppm	ASTM D5185m		<1	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	4	4	
			10	-	0	
Barium	ppm	ASTM D5185m	10		0	
Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m	10	68	53	
Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	10	68 <1	53 <1	
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450	68 <1 994	53 <1 865	
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000	1 68 <1 994 1248	53 <1 865 1007	  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000 1150	1 68 <1 994 1248 1124	0 53 <1 865 1007 928	   
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	10 100 450 3000 1150 1350	1 68 <1 994 1248 1124 1333	0 53 <1 865 1007 928 1152	    
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	10 100 450 3000 1150 1350 4250	1 68 <1 994 1248 1124 1333 3568	0 53 <1 865 1007 928 1152 3041	    
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	10 100 450 3000 1150 1350 4250 limit/base	r 68 <1 994 1248 1124 1333 3568 current	0 53 <1 865 1007 928 1152 3041 history1	     history2
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	10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25	I         68         <1         994         1248         1124         1333         3568         current         4	0 53 <1 865 1007 928 1152 3041 history1 4	     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	10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158	1         68         <1         994         1248         1124         1333         3568         current         4         0	0 53 <1 865 1007 928 1152 3041 history1 4 1	     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	10 100 450 3000 1150 1350 4250 <i>limit/base</i> >25 >158 >20	1 68 <1 994 1248 1124 1333 3568 current 4 0 2	0 53 <1 865 1007 928 1152 3041 history1 4 1 0	     history2  
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm TS ppm ppm	ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b>	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current	0 53 <1 865 1007 928 1152 3041 history1 4 1 0 history1	    history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current         0.3	0 53 <1 865 1007 928 1152 3041 history1 4 1 0 history1 0.4	     history2   history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm treations ppm ppm ppm	ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350 4250 <i>limit/base</i> >25 >158 >20 <i>limit/base</i> >3 >20	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current         0.3         12.3	0 53 <1 865 1007 928 1152 3041 history1 4 1 0 history1 0.4 11.1	     history2   history2  history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm <b>TS</b> ppm ppm ppm ppm	ASTM D5185m ASTM D7844	10 100 450 3000 1150 1350 4250 <b>limit/base</b> >25 >158 >20 <b>limit/base</b> >3 >20 >30	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current         0.3         12.3         20.5	0 53 <1 865 1007 928 1152 3041 <u>history1</u> 4 1 0 <u>history1</u> 0.4 11.1 23.8	history2 history2 history2
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	10 100 450 3000 1150 1350 4250 <i>limit/base</i> >25 >158 >20 <i>limit/base</i> >3 >20 >30	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current         0.3         12.3         20.5         current	0 53 <1 865 1007 928 1152 3041 history1 4 1 0 history1 0.4 11.1 23.8 history1	     history2   history2  history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRAE Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm TS ppm ppm ppm ppm ppm ppm ppm ppm ppm pp	ASTM D5185m ASTM D7844 *ASTM D7844 *ASTM D7415	10 100 450 3000 1150 1350 4250 <i>limit/base</i> >25 >158 >20 <i>limit/base</i> >3 >20 >30 <i>limit/base</i> >25	I         68         <1         994         1248         1124         1333         3568         current         4         0         2         current         0.3         12.3         20.5         current         22.5	0 53 <1 865 1007 928 1152 3041 history1 4 1 0 history1 0.4 11.1 23.8 history1 24.8	     history2   history2  history2  history2



# **OIL ANALYSIS REPORT**









Diagnosed Test Package : FLEET Contact: JAY LEFEBVRE Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. jay.lefebvre@leftruck.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)

Tested

: 26 Mar 2024

: 26 Mar 2024 - Wes Davis

Lab Number : 06128549

Unique Number : 10942700

Contact/Location: JAY LEFEBVRE - LEFELK

ELK RIVER, MN

US 55330

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