

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

926069 PETERBILT 320

Diesel Engine

TIER 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

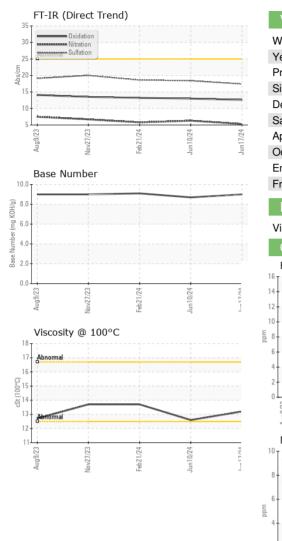
Fluid Condition

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

SAMPLE INFOR	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		GFL0115284	GFL0115207	GFL0061425
Sample Date		Client Info		17 Jun 2024	10 Jun 2024	21 Feb 2024
Machine Age	hrs	Client Info		0	7614	19007
Oil Age	hrs	Client Info		0	11519	551
Oil Changed		Client Info		Changed	Changed	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	>110	<1	9	12
Chromium	ppm	ASTM D5185m	>4	0	<1	<1
Nickel		ASTM D5185m	>2	0	<1	0
Titanium	ppm ppm	ASTM D5185m	<i>>L</i>	ں <1	<1	<1
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	1	1	1
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	<1	<1	<1
Tin	ppm	ASTM D5185m	>4	<1	0	<1
Vanadium	ppm	ASTM D5185m	~7	0	0	0
Cadmium	ppm	ASTM D5185m		0	2	0
ADDITIVES	pp					
		method	limit/base		historv1	historv2
	nom	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	limit/base	17	17	12
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	17 0	17 0	12 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 56	17 0 55	12 0 54
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 56 <1	17 0 55 1	12 0 54 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 56 <1 892	17 0 55 1 800	12 0 54 <1 807
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	17 0 56 <1 892 1104	17 0 55 1 800 1142	12 0 54 <1 807 1024
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	limit/base	17 0 56 <1 892 1104 1033	17 0 55 1 800 1142 947	12 0 54 <1 807 1024 927
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	limit/base	17 0 56 <1 892 1104 1033 1228	17 0 55 1 800 1142 947 1163	12 0 54 <1 807 1024 927 992
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		17 0 56 <1 892 1104 1033 1228 3808	17 0 55 1 800 1142 947 1163 3495	12 0 54 <1 807 1024 927 992 2944
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	limit/base	17 0 56 <1 892 1104 1033 1228 3808 current	17 0 55 1 800 1142 947 1163 3495 history1	12 0 54 <1 807 1024 927 992 2944 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		17 0 56 <1 892 1104 1033 1228 3808 current 3	17 0 55 1 800 1142 947 1163 3495 history1 8	12 0 54 <1 807 1024 927 992 2944 history2 4
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 method ASTM D5185m	limit/base >30	17 0 56 <1 892 1104 1033 1228 3808 current 3 2	17 0 55 1 800 1142 947 1163 3495 history1 8 3	12 0 54 <1 807 1024 927 992 2944 history2 4 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	limit/base >30 >20	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3	17 0 55 1 800 1142 947 1163 3495 history1 8 3 3 4	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0
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	limit/base >30 >20 limit/base	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 3 2	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 4 history1	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 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	limit/base >30 >20 limit/base >3	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 2 3 2 3 2 3 2 3 2 3	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 history1 0.4	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 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 TS ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >30 >20 limit/base >3 >20	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 2 3 2 3 current 0.1 5.3	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 5 4 history1 0.4 6.3	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 history2 0.5 5.8
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	limit/base >30 >20 limit/base >3	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 2 3 2 3 2 3 2 3 2 3	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 history1 0.4	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 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	limit/base >30 >20 limit/base >3 >20	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 2 3 2 3 current 0.1 5.3	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 5 4 history1 0.4 6.3	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 history2 0.5 5.8
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	Imit/base >30 >20 Imit/base >3 >20 >3 >20 >3 >20	17 0 56 <1 892 1104 1033 1228 3808 <u>current</u> 3 2 3 3 <u>current</u> 0.1 5.3 17.4	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 history1 0.4 6.3 18.4	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 history2 0.5 5.8 18.6
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	imit/base >30 >20 Imit/base >3 >20 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30 >30	17 0 56 <1 892 1104 1033 1228 3808 current 3 2 3 2 3 current 0.1 5.3 17.4 current	17 0 55 1 800 1142 947 1163 3495 history1 8 3 4 history1 0.4 6.3 18.4 history1	12 0 54 <1 807 1024 927 992 2944 history2 4 1 0 0 history2 0.5 5.8 18.6 history2



OIL ANALYSIS REPORT



92/LTmJ	White Metal Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE Visc @ 100°C	scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NORML NORML >0.2	NONE NONE NONE NONE NONE NORE NORML NORML NEG	NONE NONE NONE NONE NONE NORML NORML NEG	NONE NONE NONE NONE NONE NONE NORML
Jun17/24	Yellow Metal Precipitate Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NORML NORML	NONE NONE NONE NONE NONE NORML NORML
42/L11/24	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORE NORML NORML	NONE NONE NORML NORML	NONE NONE NORML NORML
42/L1mr	Silt Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORE NORML NORML	NONE NONE NORML NORML	NONE NONE NORML NORML
Jun17/24	Debris Sand/Dirt Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar scalar scalar	*Visual *Visual *Visual *Visual *Visual	NONE NONE NORML NORML	NONE NONE NORML NORML	NONE NONE NORML NORML	NONE NORML NORML
42/Tinul	Appearance Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar	*Visual *Visual *Visual	NORML NORML	NORML NORML	NORML NORML	NORML NORML
124 Inul	Odor Emulsified Water Free Water FLUID PROPE	scalar scalar scalar scalar	*Visual *Visual	NORML	NORML	NORML	NORML
LnuL	Emulsified Water Free Water FLUID PROPE	scalar scalar scalar	*Visual		NORML		
	Emulsified Water Free Water FLUID PROPE	scalar scalar		>0.2			
	FLUID PROPE	scalar	*Visual			INEG	NEG
	FLUID PROPE				NEG	NEG	NEG
			method	limit/base	current	history1	history2
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	Ferrous Alloys						
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	Abnormal			<u>2.0</u>)		
	11						
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	Aug:	Feb21	Jun 10	[lun]	Aug: Vov27	Feb21	Jun 10/24
		Non-ferrous Metal	Non-ferrous Metals	Non-ferrous Metals	Viscosity @ 100°C	Non-ferrous Metals	Non-ferrous Metals Viscosity @ 100°C Viscosity @ 100°C

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