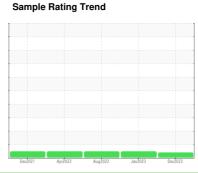


OIL ANALYSIS REPORT

Area **5C07** PETERBILT 337 BTK6528

Diesel Engine

DIESEL ENGINE OIL SAE 15W40 (--- QTS)





Recommendation

The oil change at the time of sampling has been noted. 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.

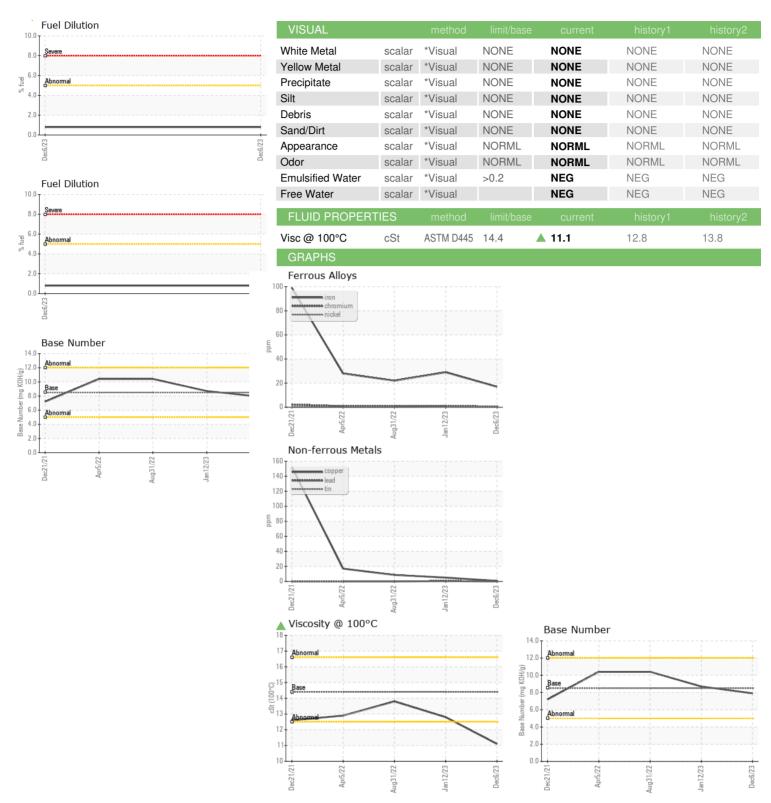
▲ Fluid Condition

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

		Dec2021	Apr2022	Aug ² 022 Jan ² 023	Dec2023	
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		ARI0006712	ARI0005668	ARI0005626
Sample Date		Client Info		06 Dec 2023	12 Jan 2023	31 Aug 2022
Machine Age	mls	Client Info		37354	24721	20285
Oil Age	mls	Client Info		12633	4436	5462
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
CONTAMINATION	1	method	limit/base	current	history1	history2
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	17	29	22
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	<1
Aluminum	ppm	ASTM D5185m	>25	25	32	20
Lead	ppm	ASTM D5185m	>45	0	<1	0
Copper	ppm	ASTM D5185m	>85	<1	5	9
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	<1
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	70	18	10
Boron Barium	ppm ppm	ASTM D5185m ASTM D5185m		70 0	18 0	10
Barium	ppm	ASTM D5185m	10	0	0	0
Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	10	0	0 61	0 63
Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	10 100	0 4 <1	0 61 <1	0 63 <1
Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450	0 4 <1 770	0 61 <1 946	0 63 <1 873
Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000	0 4 <1 770 1277	0 61 <1 946 1115	0 63 <1 873 1090
Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	10 100 450 3000 1150 1350	0 4 <1 770 1277 768	0 61 <1 946 1115 1010	0 63 <1 873 1090 1029
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	10 100 450 3000 1150 1350	0 4 <1 770 1277 768 859	0 61 <1 946 1115 1010 1309	0 63 <1 873 1090 1029 1225
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 ASTM D5185m	10 100 450 3000 1150 1350 4250	0 4 <1 770 1277 768 859 3022	0 61 <1 946 1115 1010 1309 3761	0 63 <1 873 1090 1029 1225 2935
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm	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	0 4 <1 770 1277 768 859 3022 current	0 61 <1 946 1115 1010 1309 3761 history1	0 63 <1 873 1090 1029 1225 2935 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >30	0 4 <1 770 1277 768 859 3022 current	0 61 <1 946 1115 1010 1309 3761 history1	0 63 <1 873 1090 1029 1225 2935 history2
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 Iimit/base >30 >158 >20	0 4 <1 770 1277 768 859 3022 current 7	0 61 <1 946 1115 1010 1309 3761 history1	0 63 <1 873 1090 1029 1225 2935 history2 6
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 Iimit/base >30 >158 >20	0 4 <1 770 1277 768 859 3022 current 7 2 75	0 61 <1 946 1115 1010 1309 3761 history1 8 1	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >5	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0
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	ASTM D5185m	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >5	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8 current	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm	ASTM D5185m ASTM D7844	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >5 limit/base >3 >20	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8 current 0.2	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0 history1 0.3	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0
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	ASTM D5185m ASTM D7844 *ASTM D7844	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >5 limit/base >3 >20	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8 current 0.2 9.0	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0 history1 0.3 7.8	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0 history2 0.2 7.7
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	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D76145	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >3 >20 >30	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8 current 0.2 9.0 18.5	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0 history1 0.3 7.8 18.1	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0 history2 0.2 7.7 19.6
Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm	ASTM D5185m ASTM D7624 *ASTM D7624 *ASTM D7624 *ASTM D7615 method	10 100 450 3000 1150 1350 4250 limit/base >30 >158 >20 >5 limit/base >3 20 30 limit/base	0 4 <1 770 1277 768 859 3022 current 7 2 75 0.8 current 0.2 9.0 18.5 current	0 61 <1 946 1115 1010 1309 3761 history1 8 1 69 <1.0 history1 0.3 7.8 18.1 history1	0 63 <1 873 1090 1029 1225 2935 history2 6 0 51 <1.0 history2 0.2 7.7 19.6 history2



OIL ANALYSIS REPORT







Certificate L2367

Laboratory Sample No. Lab Number **Unique Number**

: ARI0006712 : 06056377 : 10822326

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 10 Jan 2024 Recieved Diagnosed

: 14 Jan 2024 Diagnostician : Don Baldridge

Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, TBN) 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)

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