



# WEAR CHECK

## OIL ANALYSIS REPORT

WEAR	<b>NORMAL</b>
CONTAMINATION	<b>NORMAL</b>
FLUID CONDITION	<b>NORMAL</b>

Area  
**2H28**  
Machine Id  
**PETERBILT 367 TCK9819 (S/N 1XPTP4EX4HD418246)**  
Component  
**Diesel Engine**  
Fluid  
**DIESEL ENGINE OIL SAE 15W40 (12 GAL)**

### RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		<b>ARI06124508</b>	ARI05155852	ARI016101
Sample Date		Client Info		<b>20 Mar 2024</b>	12 Jan 2021	15 Jul 2019
Machine Age	mls	Client Info		<b>145261</b>	102886	85806
Oil Age	mls	Client Info		<b>0</b>	0	0
Filter Age	mls	Client Info		<b>0</b>	0	0
Oil Changed		Client Info		<b>N/A</b>	N/A	N/A
Filter Changed		Client Info		<b>N/A</b>	N/A	N/A
Sample Status				<b>NORMAL</b>	NORMAL	NORMAL

### WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>165	<b>11</b>	4	7
Chromium	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Nickel	ppm	ASTM D5185m	>4	<b>&lt;1</b>	0	0
Titanium	ppm	ASTM D5185m	>2	<b>&lt;1</b>	<1	0
Silver	ppm	ASTM D5185m	>2	<b>&lt;1</b>	0	<1
Aluminum	ppm	ASTM D5185m	>20	<b>5</b>	3	5
Lead	ppm	ASTM D5185m	>150	<b>&lt;1</b>	<1	2
Copper	ppm	ASTM D5185m	>90	<b>1</b>	<1	<1
Tin	ppm	ASTM D5185m	>5	<b>&lt;1</b>	<1	<1
Vanadium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
White Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE

### CONTAMINATION

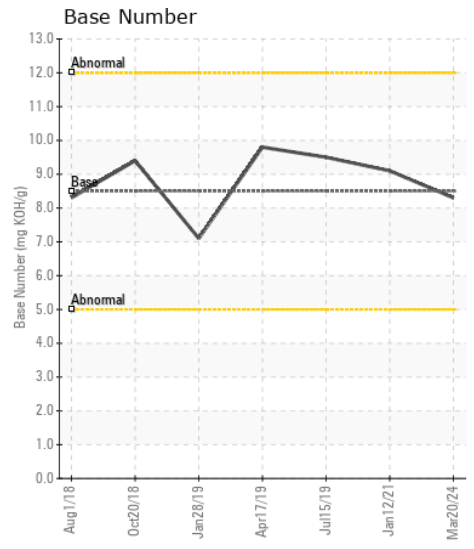
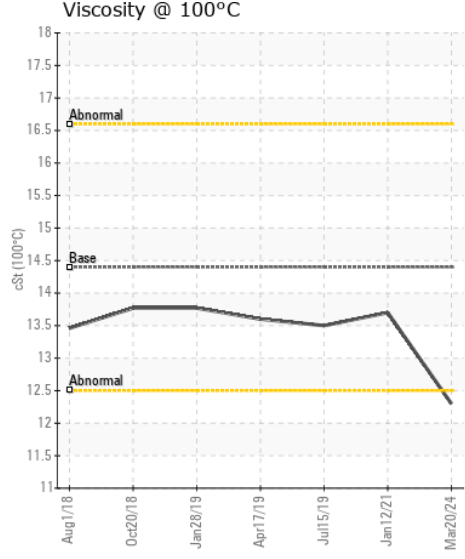
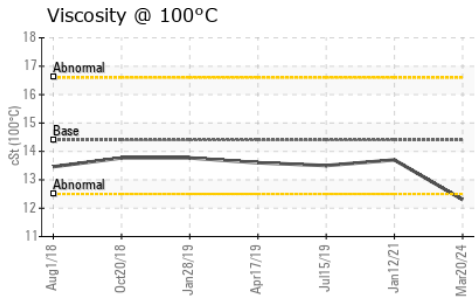
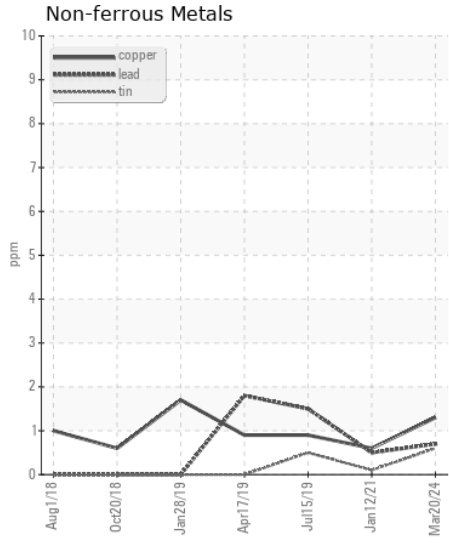
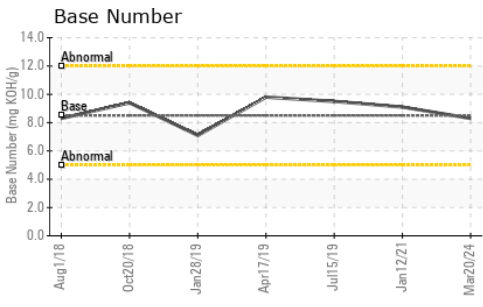
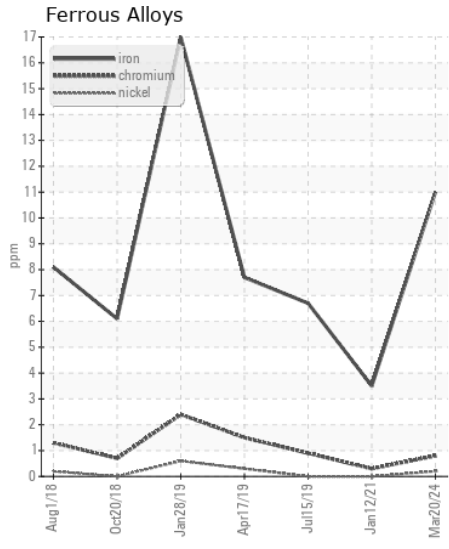
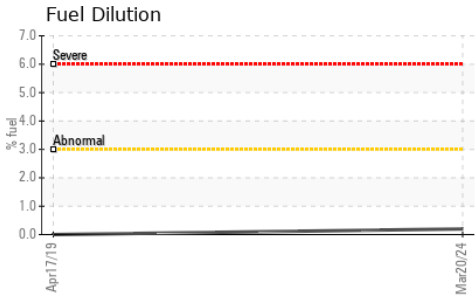
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>35	<b>11</b>	7	7
Potassium	ppm	ASTM D5185m	>20	<b>7</b>	2	12
Fuel	%	ASTM D3524	>3.0	<b>0.2</b>	<1.0	<1.0
Water		WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol		WC Method		<b>NEG</b>	NEG	NEG
Soot %	%	*ASTM D7844	>7.5	<b>0.2</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>7.8</b>	5.5	8
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>19.4</b>	23	18
Silt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Debris	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	<b>NONE</b>	NONE	NONE
Appearance	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Odor	scalar	*Visual	NORML	<b>NORML</b>	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	<b>NEG</b>	NEG	NEG

### 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.

Sodium	ppm	ASTM D5185m	>158	<b>3</b>	<1	39
Boron	ppm	ASTM D5185m	250	<b>112</b>	353	31
Barium	ppm	ASTM D5185m	10	<b>2</b>	0	0
Molybdenum	ppm	ASTM D5185m	100	<b>130</b>	108	75
Manganese	ppm	ASTM D5185m		<b>&lt;1</b>	<1	<1
Magnesium	ppm	ASTM D5185m	450	<b>941</b>	578	955
Calcium	ppm	ASTM D5185m	3000	<b>1904</b>	1604	1192
Phosphorus	ppm	ASTM D5185m	1150	<b>1014</b>	739	996
Zinc	ppm	ASTM D5185m	1350	<b>1229</b>	873	1112
Sulfur	ppm	ASTM D5185m	4250	<b>3612</b>	2356	3992
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>15.6</b>	15.9	14.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	<b>8.3</b>	9.1	9.5
Visc @ 100°C	cSt	ASTM D445	14.4	<b>12.3</b>	13.7	13.5



**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ARI06124508 **Received** : 21 Mar 2024  
**Lab Number** : 06124508 **Tested** : 22 Mar 2024  
**Unique Number** : 10938659 **Diagnosed** : 22 Mar 2024 - Wes Davis  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**INSITUFORM TECHNOLOGIES, INC**  
 17988 EDISON AVE.  
 CHESTERFIELD, MO  
 US 63005  
 Contact: JOHN SLOAN  
 ARICHTER@INSITUFORM.COM  
 T: (314)280-7555  
 F:

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)