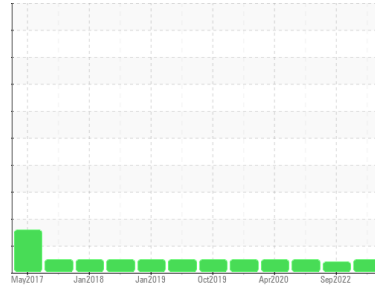




OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL



Machine Id
PETERBILT 348 RTK9844 TK (S/N 2NP3XJ0X8HM443144)

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 40 (9 QTS)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. The fluid was not specified, however, a fluid match indicates that this fluid is (GENERIC) DIESEL ENGINE OIL SAE 40. Please confirm.

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 INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			ARI06124513	ARI05636243	ARI05050489
Sample Date	Client Info			20 Mar 2024	07 Sep 2022	24 Aug 2020
Machine Age	hrs	Client Info		10461	8041	3065
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	ATTENTION	NORMAL

CONTAMINATION		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 METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>110	11	6	7
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	2
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>25	3	2	9
Lead	ppm	ASTM D5185m	>45	<1	<1	2
Copper	ppm	ASTM D5185m	>85	3	<1	1
Tin	ppm	ASTM D5185m	>4	<1	<1	0
Antimony	ppm	ASTM D5185m		---	---	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	<1

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	86	166	297
Barium	ppm	ASTM D5185m	10	1	0	0
Molybdenum	ppm	ASTM D5185m	100	4	14	110
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	201	92	596
Calcium	ppm	ASTM D5185m	3000	2098	1992	1493
Phosphorus	ppm	ASTM D5185m	1150	843	908	754
Zinc	ppm	ASTM D5185m	1350	1049	1103	823
Sulfur	ppm	ASTM D5185m	4250	3573	3215	2060

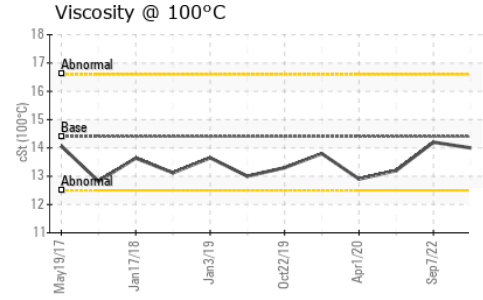
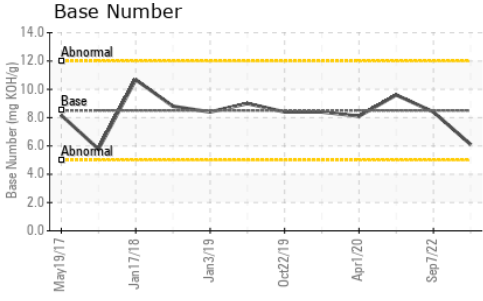
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>30	5	3	6
Sodium	ppm	ASTM D5185m	>216	1	2	3
Potassium	ppm	ASTM D5185m	>20	6	6	<1

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.4	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	9.2	8.4	7.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	22.8	23.3

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.8	19.4	17.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.1	8.4	9.6



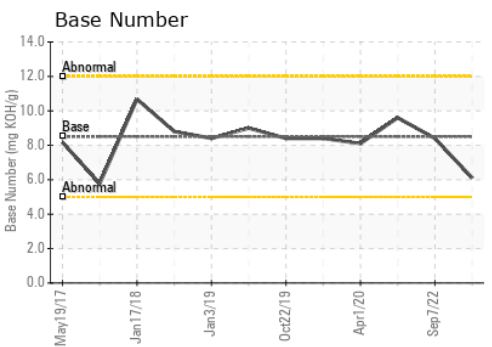
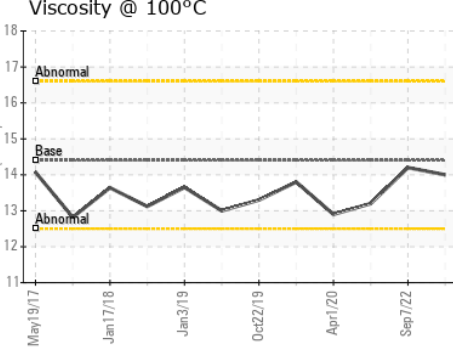
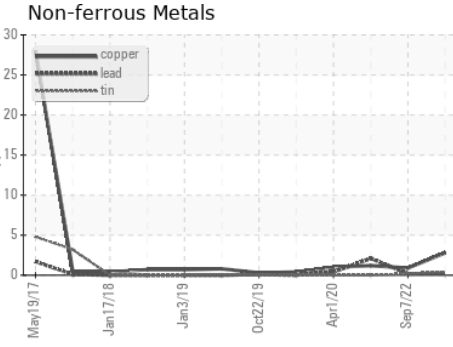
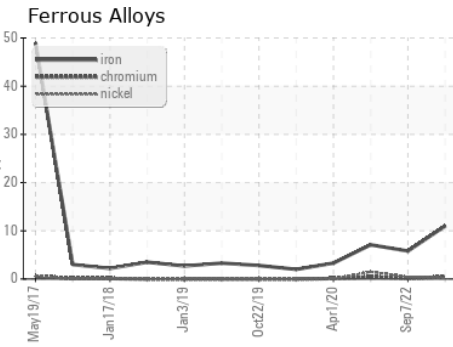
OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	14.0	13.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : ARI06124513 **Received** : 21 Mar 2024
Lab Number : 06124513 **Tested** : 21 Mar 2024
Unique Number : 10938664 **Diagnosed** : 21 Mar 2024 - Wes Davis
Test Package : CONST (Additional Tests: 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)