

2H28 Machine Id PETERBILT 348 RTK9953 REEFER (S/N 2NP3LJ0X4JM467281)

Component Diesel Engine

DIESEL ENGINE OIL SAE 40 (--- GAL)

| RECOMMENDATION | Test | UOM | Method | Limit/Abn | Current | History1 | History2 |
|--|------------------|---------------|-------------|-------------|-------------|-------------|-------------|
| 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. | Sample Number | | Client Info | | ARI06124515 | ARI05984371 | ARI05925876 |
| | Sample Date | | Client Info | | 20 Mar 2024 | 19 Oct 2023 | 15 Aug 2023 |
| | Machine Age | hrs | Client Info | | 11814 | 11469 | 10950 |
| | Oil Age | hrs | Client Info | | 0 | 0 | 0 |
| | Filter Age | hrs | Client Info | | 0 | 0 | 0 |
| | Oil Changed | | Client Info | | N/A | N/A | N/A |
| | Filter Changed | | Client Info | | N/A | N/A | N/A |
| | Sample Status | | | | NORMAL | NORMAL | NORMAL |
| WEAR | Iron | ppm | ASTM D5185m | <u>\110</u> | 2 | 0 | 2 |
| WEAN | Chromium | ppm | ASTM D5185m | | <1 | 0 | <1 |
| All component wear rates are normal. | Nickel | ppm | ASTM D5185m | | 0 | 0 | 0 |
| | Titanium | ppm | ASTM D5185m | ~_ | ۰ <1 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | >2 | 0 | 0 | 0 |
| | Aluminum | ppm | ASTM D5185m | | 3 | <1 | 2 |
| | Lead | ppm | ASTM D5185m | | ۲ ۲ | 0 | <1 |
| | Copper | ppm | ASTM D5185m | | 1 | 0 | 0 |
| | Tin | ppm | ASTM D5185m | | <1 | <1 | <1 |
| | Vanadium | ppm | ASTM D5185m | 21 | <1 | <1 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | | | | | | HOHL | HONE |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >30 | 3 | 2 | 3 |
| There is no indication of any contamination in the oil. | Potassium | ppm | ASTM D5185m | >20 | 6 | 4 | 5 |
| | Fuel | | WC Method | >5 | <1.0 | <1.0 | <1.0 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | | WC Method | | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.1 | 0.1 | 0.1 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 6.4 | 6.4 | 6.5 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 20.0 | 19.3 | 20.1 |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Appearance | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Emulsified Water | scalar | *Visual | >0.2 | NEG | NEG | NEG |
| FLUID CONDITION | Sodium | nnm | ASTM D5185m | > 216 | <1 | 1 | 2 |
| FLUID CONDITION | Boron | ppm | ASTM D5185m | | 164 | 154 | 164 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service. | Barium | ppm | ASTM D5185m | | 104 | 0 | 0 |
| | Molybdenum | ppm ppm | ASTM D5185m | | 1 | 0 | 2 |
| | Manganese | ppm | ASTM D5185m | 100 | 0 | 0 | <1 |
| | Magnesium | ppm | ASTM D5185m | 450 | 17 | 24 | 56 |
| | Calcium | ppm | ASTM D5185m | | 2152 | 2132 | 2149 |
| | Phosphorus | ppm | ASTM D5185m | | 938 | 1005 | 995 |
| | Zinc | ppm | ASTM D5185m | | 1127 | 1209 | 1239 |
| | Sulfur | ppm | ASTM D5185m | | 3709 | 3550 | 4422 |
| | Oulidation | ppm AL / A | | 1200 | 103 | 0000 | 107 |

Oxidation

Visc @ 100°C cSt

15.4

7.2

13.5

16.1

7.6

13.3

Abs/.1mm *ASTM D7414 >25

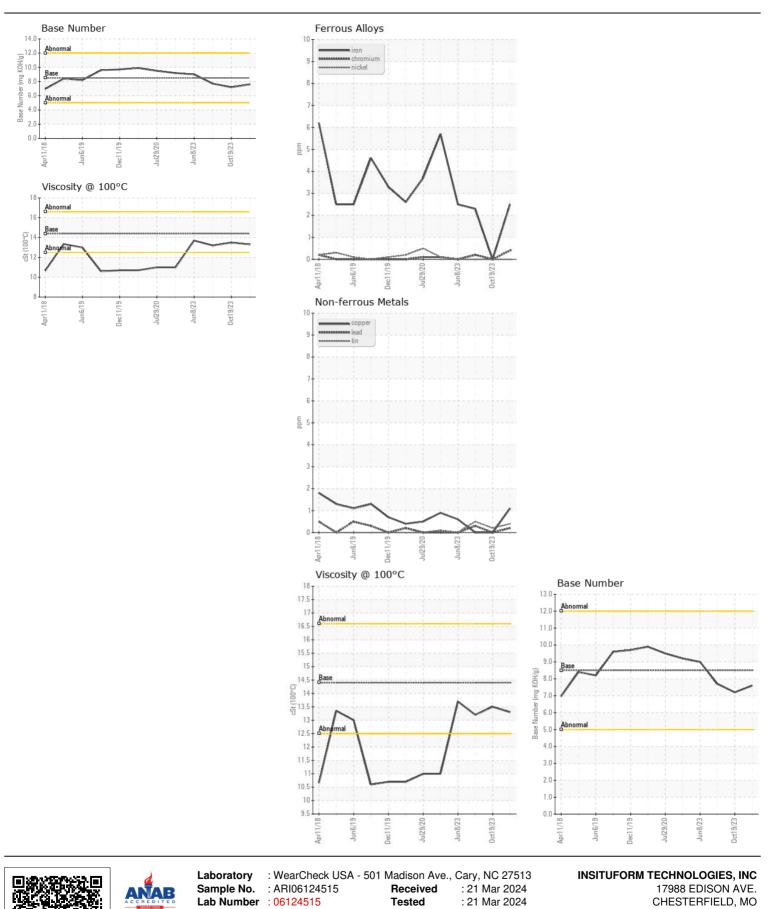
ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5

16.7

7.7

13.2



: 21 Mar 2024 - Wes Davis Unique Number : 10938666 Diagnosed Test Package : CONST (Additional Tests: TBN) Contact: JOHN SLOAN Certificate L2367 ARICHTER@INSITUFORM.COM 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. T: (314)280-7555 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

F:

US 63005