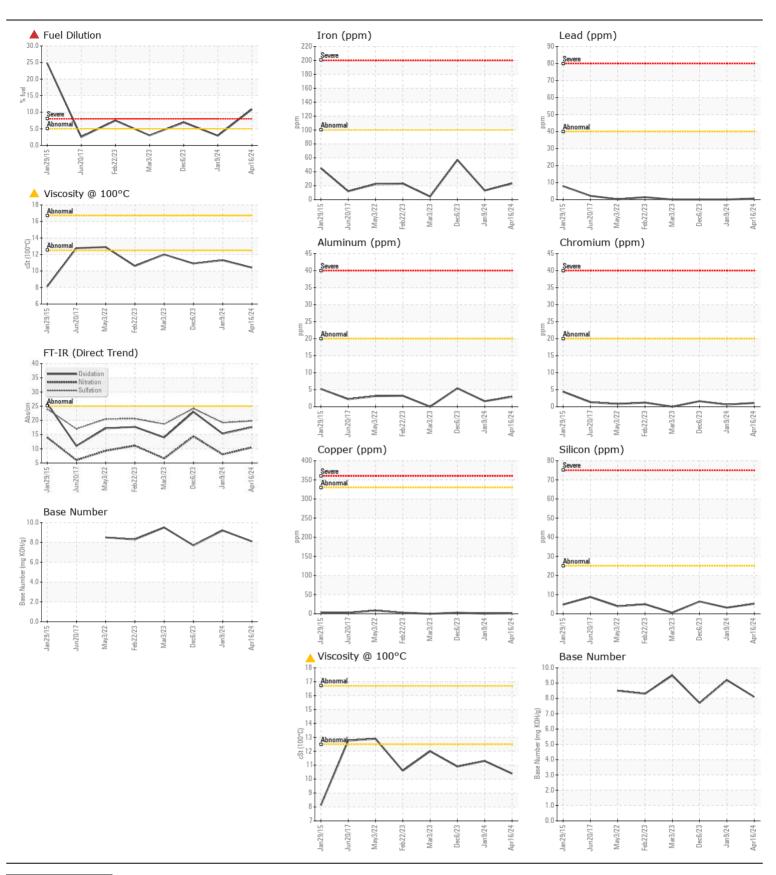
WEAR
CONTAMINATION
FLUID CONDITION

NORMAL SEVERE ABNORMAL

Machine Id

231145 SENNEBOGEN 835E 835.0.2081

| 231145 SENNEBOGEN 835E 835.0.2081 Diesel Engine | | | | | | | |
|---|------------------------|----------|----------------------------|-----------------|----------------------|-----------------------|-----------------------|
| MOBIL FLEET 15W40 (8 GAL) | | | | | | | |
| | T4 | | Mathaal | Line:4/Alex | | I Bakamad | Lists w.O |
| RECOMMENDATION | Test Sample Number | UOM | Method Client Info | Limit/Abn | Current DJJ001836 | History1 DJJ002248 | History2 DJJ009768 |
| We advise that you check the fuel injection system. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. | Sample Date | | Client Info | | 16 Apr 2024 | 09 Jan 2024 | 06 Dec 2023 |
| | Machine Age | hrs | Client Info | | 15640 | 15375 | 15269 |
| | Oil Age | hrs | Client Info | | 371 | 106 | 523 |
| | Filter Age | hrs | Client Info | | 371 | 106 | 523 |
| | Oil Changed | 1110 | Client Info | | Changed | Changed | Changed |
| | Filter Changed | | Client Info | | N/A | Changed | Changed |
| | Sample Status | | | | SEVERE | ABNORMAL | Ü |
| WEAR | Iron | ppm | ASTM D5185m | >100 | 23 | 13 | 57 |
| All component wear rates are normal. | Chromium | ppm | ASTM D5185m | >20 | 1 | <1 | 2 |
| | Nickel | ppm | ASTM D5185m | >4 | <1 | 0 | 1 |
| | Titanium | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Silver | ppm | ASTM D5185m | >3 | 0 | 0 | <1 |
| | Aluminum | ppm | ASTM D5185m | | 3 | 2 | 5 |
| | Lead | ppm | ASTM D5185m | | <1 | 0 | 0 |
| | Copper | ppm | ASTM D5185m | | 2 | <1 | 3 |
| | Tin | ppm | | >15 | <1 | 0 | <1 |
| | Vanadium | ppm | ASTM D5185m | | <1 | <1 | 0 |
| | White Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Yellow Metal | scalar | *Visual | NONE | NONE | NONE | NONE |
| CONTAMINATION | Silicon | ppm | ASTM D5185m | >25 | 5 | 3 | 6 |
| | Potassium | ppm | ASTM D5185m | | 2 | 2 | 2 |
| There is a high amount of fuel present in the oil. Tests confirm the presence of fuel in the oil. | Fuel | % | ASTM D3524 | >5 | 10.9 | <u> </u> | △ 6.9 |
| | Water | | WC Method | >0.2 | NEG | NEG | NEG |
| | Glycol | | WC Method | | NEG | NEG | NEG |
| | Soot % | % | *ASTM D7844 | >3 | 0.5 | 0.3 | 1 |
| | Nitration | Abs/cm | *ASTM D7624 | >20 | 10.5 | 8.0 | 14.4 |
| | Sulfation | Abs/.1mm | *ASTM D7415 | >30 | 19.8 | 19.2 | 24.2 |
| | Silt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Debris | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Sand/Dirt | scalar | *Visual | NONE | NONE | NONE | NONE |
| | Appearance Odor | scalar | *Visual | NORML | NORML | NORML | NORML |
| | Emulsified Water | scalar | *Visual *Visual | NORML >0.2 | NORML NEG | NORML NEG | NORML NEG |
| ELUID COMPITION | | | | <i>></i> 0.2 | | | |
| FLUID CONDITION | Sodium | ppm | ASTM D5185m | | <1 | <1 | 2 |
| The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants. | Boron | ppm | ASTM D5185m | | 6 | 12 | 5 |
| | Barium | ppm | ASTM D5185m | | 2 | 0 | <1 |
| | Molybdenum | ppm | ASTM D5185m | | 72 -1 | 57 | 72 |
| | Manganese Magnesium | ppm | ASTM D5185m ASTM D5185m | | <1 838 | 0 834 | <1 843 |
| | Calcium | ppm | ASTM D5185m | | 1054 | 1143 | 1043 |
| | Phosphorus | ppm | ASTM D5185m | | 935 | 990 | 951 |
| | Zinc | ppm | ASTM D5185m | | 1127 | 1179 | 1161 |
| | Sulfur | ppm | ASTM D5185m | | 2988 | 3158 | 2748 |
| | Oxidation | Abs/.1mm | *ASTM D7414 | >25 | 17.6 | 15.3 | 23.0 |
| | Base Number (BN) | | ASTM D2896 | | 8.1 | 9.2 | 7.7 |
| | Visc @ 100°C | cSt | ASTM D445 | | 10.4 | <u>▲</u> 11.3 | ▲ 10.9 |





Certificate L2367

Laboratory Sample No.

: DJJ001836 Lab Number : 06161278

Unique Number : 10996701

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received **Tested**

: 26 Apr 2024 Diagnosed Test Package: MOB 1 (Additional Tests: FuelDilution, PercentFuel, TBN)

: 30 Apr 2024 : 30 Apr 2024 - Wes Davis

TEXAS PORT RECYCLING - PINEMONT 4400 PINEMONT DRIVE HOUSTON, TX US 77018 Contact: Rusty Trask

rgt@texasportrecycling.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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (713)686-1004

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